

*Ministry of
Environment, Lands
and Parks*

ANNUAL REPORT 1999



BRITISH
COLUMBIA

GOVERNMENT OF
BRITISH COLUMBIA

MINISTRY OF
*Environment, Lands
and Parks*

ANNUAL REPORT 1999

Canadian Cataloguing in Publication Data

British Columbia, Ministry of Environment, Lands and
Parks

Annual report. — 1991/92-

Annual.

Report year end Mar. 31.

Merger of: British Columbia. Ministry of Environment. Annual
report (1988/89). ISSN 1181-8336, and; British Columbia. Ministry
of Parks. Annual report. ISSN 0847-4516, and; British Columbia.
Ministry of Crown Lands. Annual report. ISSN 1181-6996.

Issues for 1993/94-1994/95 include: the Ministry Responsible for
Multiculturalism and Human Rights

Issue for 1996 covers 1994/95-1995/96.

ISSN 1195-4825 = Annual report — British Columbia. Ministry of
Environment, Lands and Parks.

1. British Columbia. Ministry of Environment, Lands and Parks —
Periodicals. 2. British Columbia. Ministry Responsible for Multi-
culturalism and Human Rights — Periodicals. 3. Environmental policy —
British Columbia — Periodicals. 4. Parks — Government policy — British
Columbia — Periodicals. 5. Land use — Government policy — British
Columbia — Periodicals. I. Title.

HC117.B7B757

354.7110682'32'05

C93-092347-2

To the Honourable Garde Gardom
Lieutenant-Governor of the Province of British Columbia

May it please Your Honour:

I have the pleasure to submit to you the annual report of the Ministry of
Environment, Lands and Parks for the period of April 1, 1998 to March 31, 1999.

Respectfully submitted,

Joan M. Sawicki
Minister

To the Honourable Joan Sawicki
Minister of Environment, Lands and Parks

I have the pleasure to submit to you the annual report of the Ministry of
Environment, Lands and Parks for the period of April 1, 1998 to March 31, 1999.

Respectfully submitted,

Derek Thompson
Deputy Minister



Minister's Message

This annual report marks the end of a century in which growth and development have brought about some of the most rapid and far-reaching changes in the earth's environment since the last Ice Age. In the century ahead, I believe we will need to challenge ourselves to create a different and far more positive kind of change — that of reshaping our human activities to be more compatible with the natural systems upon which we all depend.

For British Columbia, we are challenged in four key areas: maintaining our province's unique diversity of species and habitats, improving our stewardship of water, taking action to address air pollution and climate change, and moving forward to sustain the positive outcomes of the past decade of land and resource use planning — especially our expanded legacy of parks and protected areas.

The Ministry of Environment, Lands and Parks has a mandate to establish and maintain high environmental standards and deliver quality public service in each of these areas, in addition to numerous other critically important environmental and resource management responsibilities. Increasingly, the ministry is also embracing a larger role as an agent of change by assisting businesses, industries, communities and individuals to make the needed transition towards a more ecologically, socially and economically sustainable future.

Our success in this direction will continue to depend on our team of dedicated ministry staff who are working hard to support and promote our core mandate of environmental protection, as well as the emerging sustainability agenda, both within government and across the province.

I am very pleased to present this summary of the ministry's recent activities, achievements and future plans.

Joan M. Sawicki
Minister of Environment, Lands and Parks

Message from the Deputy Minister

This report summarizes the activities of the Ministry of Environment, Lands and Parks during the period beginning April 1, 1998 and ending March 31, 1999. During this period, the ministry continued to work with its many partners to fulfill its vision of a healthy, diverse, sustainable environment.

Environmental highlights during the year included the designation or announcement of 72 new parks, protected areas or park additions totalling more than 700,000 hectares; the passage of special legislation providing for management of the Muskwa-Kechika wilderness in the northern Rockies; the launch of the expanded beverage container deposit-refund system and continued expansion of other industry-operated stewardship programs; the launch of strategies to address drinking-water-quality issues and non-point source pollution; release of the Identified Wildlife Management Strategy under the Forest Practices Code; and completion of the Parks Legacy public consultation on future planning and management of the provincial parks system.

Two significant organizational changes have occurred since the beginning of the reporting period. In October 1998, management of Crown land tenures was delegated to the government-owned British Columbia Assets and Land Corporation, to provide more resources for processing new tenures and renewals. Crown land policy development continues to be the responsibility of the Ministry of Environment, Lands and Parks. As well, the activities of several programs that reported through other divisions in 1998/99 are now organized under the new Wildlife, Habitat and Enforcement Division established in mid-1999.

In addition to reporting on the activities of program and regional operations during the reporting period, this document provides an overview of the ministry's current organizational structure and strategic priorities. The latter, identified in the ministry's *Business Plan 1999-2001*, are reproduced in the Strategic Overview section of this report, together with a summary of environmental conditions and trends developed through the ministry's state of environment reporting process. An updated Environmental Trends report will be released in the spring of 2000.

Derek Thompson
Deputy Minister

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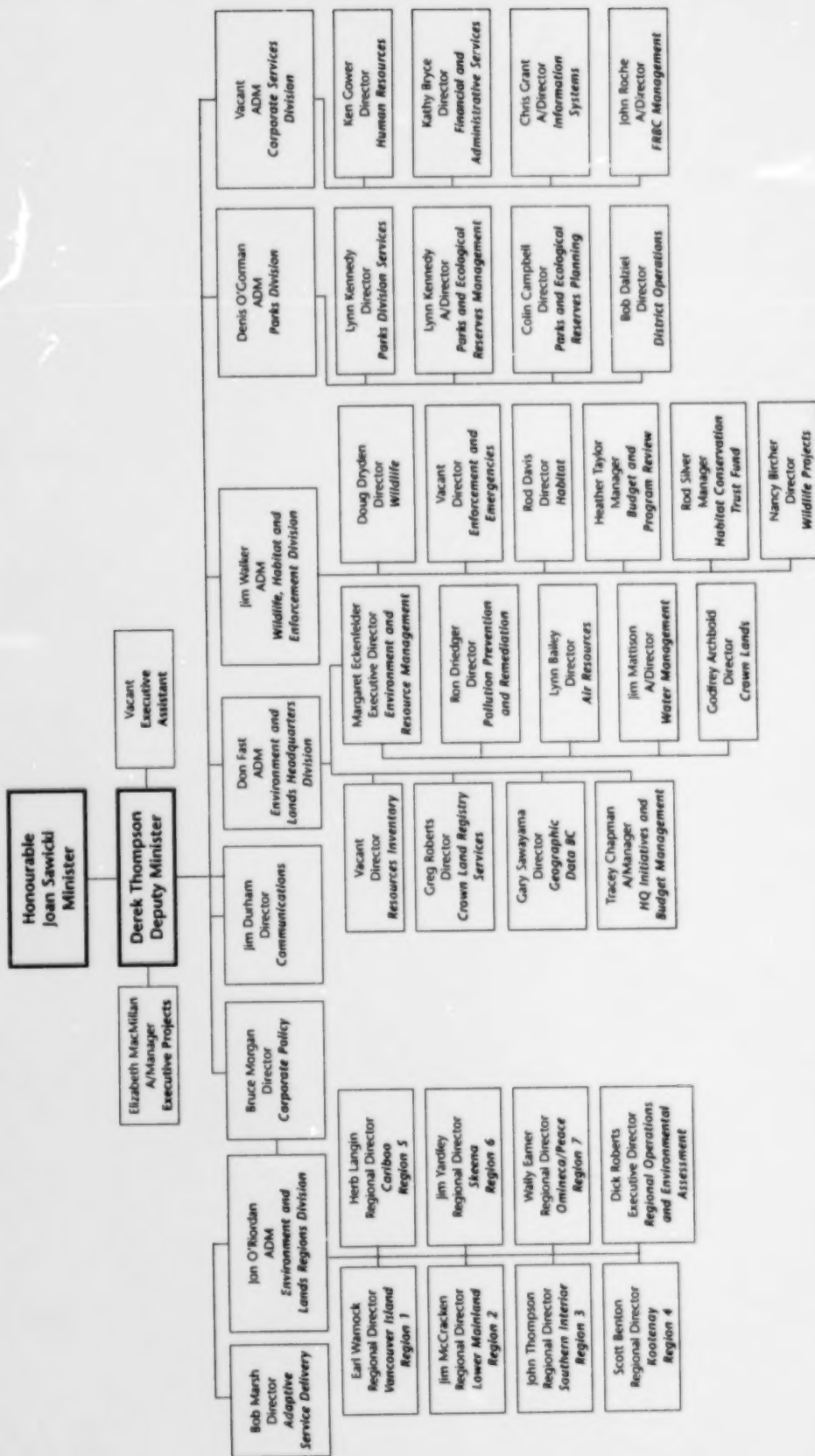
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The Ministry

Ministry of Environment, Lands and Parks — March 2000





FINANCIAL OVERVIEW

Ministry Expenditures 1998/99

	(\$1,000s)
Minister's Office	376
Corporate Services Division	41,574
Environment and Lands Headquarters Division	28,622
Environment and Lands Regional Operations	33,795
BC Parks	32,743
Environment Youth Team	4,123
Crown Land Account	2,451
Habitat Conservation Trust Fund	1,250
Sustainable Environment Fund (formerly Environmental Protection)	30,505
TOTAL	175,439

THE YEAR AT A GLANCE

APRIL 1998—MARCH 1999

1998

April

- Nearly 1,600 new youth jobs were announced under the Environment Youth Team.
- The management committee of the Nechako Environmental Enhancement Fund began work on key issues relating to enhancement of the Nechako River.
- The B.C. government and B.C. Agriculture Council signed a 10-point action plan establishing a single-window approach for consultation on environmental issues that affect agriculture.
- Funding of \$5 million was announced under the Habitat Conservation Trust Fund for 113 projects to protect, restore and enhance fish and wildlife populations throughout B.C.
- A State of the Environment indicator report showed that protected areas had increased from 6.3% to 10.6% of the province since 1991.
- A \$3-million flood-protection assistance fund was established to address public safety concerns and reduce future flood-damage potential.

May

- Legislation amending the *Occupiers Liability Act* was introduced, supporting private landowners who wish to provide greater recreational access to their lands.
- Legislation amending the *Waste Management Act* was introduced, giving regional districts further powers to implement solid-waste management plans.
- A public awareness campaign was launched to support recovery of the endangered Vancouver Island marmot.
- Seven more B.C. rivers (the Alouette, Columbia, Middle, Peace, Prophet and Stuart rivers and Mission Creek) were given Heritage River status in recognition of their natural, cultural and recreational values.

- A revised commercial recreation policy was announced, featuring longer tenure terms, a streamlined application process, a freeze in Crown land pricing and flexible tenure options.

June

- The Greenhouse Gas Emissions Reduction Trading Pilot, a market-based initiative to address climate change concerns, began operation.
- A list of 58 bodies of water slated for protection against pleasure boat sewage discharges was jointly released with the federal government.
- Consultation began on streamside protection under the *Fish Protection Act*.
- An action plan was released to implement a provincial strategy for special management zones established under the land-use planning process.
- New legislation, the *Muskwa-Kechika Management Area Act*, was introduced to provide special protection and management for the Muskwa-Kechika wilderness in the northern Rockies.
- The interim report of B.C.'s Park Legacy Panel was released and the public invited to respond to its preliminary recommendations.

July

- The regulation governing environmentally safe disposal of household hazardous wastes was amended to address consumer concerns.
- \$2.2 million was provided for 37 flood-protection projects across B.C.
- A *Land Act* amendment was tabled to streamline the tenure application process.
- A draft strategy for marine protected areas on the Pacific coast was released jointly for public discussion by Canada and B.C.

September

- B.C. called on the federal government to take steps to remove the additive MMT from gasoline.
- The Fraser River was declared a Canadian Heritage River.

October

- The expanded deposit-refund system for beverage containers took effect.
- The management of Crown land tenures was delegated to the government-owned B.C. Assets and Land Corporation.
- A new Wildlife Management Area was created at Sturgeon Bank.
- Critical fish habitat was acquired for conservation on the Horsefly River in the Cariboo-Chilcotin.

November

- Changes were announced affecting the criteria for environmental assessment reviews.
- B.C.'s Park Legacy Panel released its recommendations for final public review.
- B.C. and Canada announced their agreement to acquire two more properties in the Gulf Islands under the Pacific Marine Heritage Legacy.
- B.C. and Canada launched a study to examine the feasibility of establishing a Marine Conservation Area in the southern Strait of Georgia.

December

- The Pacific Estuary Conservation Program received an international Ramsar award for inter-agency cooperation to protect wetlands.
- The Georgia Basin Ecosystem Initiative was announced, a federal/provincial commitment to help ensure long-term sustainability in the Georgia Basin.
- The Green Team Water Crew, a new environmental education initiative to encourage wise water use, was launched.

1999

January

- \$50,000 was committed from the Habitat Conservation Trust Fund to help protect the endangered Garry oak ecosystem on South Winchelsea Island.
- *Environmental Trends in B.C.*, a report summarizing environmental trends in 12 indicator areas, was released.
- 24 new protected areas totalling more than 250,000 hectares were created through the Prince George Land and Resource Management Plan.
- Three Lower Mainland protected areas were elevated to Class A park and ecological reserve status.
- Four special-feature areas identified under the Vancouver Island Land Use Plan, including key Vancouver Island marmot habitat, were acquired for protection as parks.
- The province joined the federal government and local communities in applying to nominate Clayoquot Sound as B.C.'s first International Biosphere Reserve.

February

- New water-use-plan guidelines were released, providing improved public input into management of major water-control facilities such as hydro dams and municipal waterworks.
- The Identified Wildlife Management Strategy was released, giving increased protection under the Forest Practices Code to species at risk.
- B.C.'s Park Legacy Panel presented its final recommendations for planning and managing the provincial parks system.

March

- 38 new protected areas totalling 367,000 hectares were created through the Dawson Creek and Fort St. James Land and Resource Management Plans.
- An action plan was released identifying key actions to protect water quality by preventing pollution from non-point sources.
- The Landscape Planning Guide was released jointly by the Ministry of Forests and the Ministry of Environment, Lands and Parks to assist agency planning staff in managing key aspects of biodiversity.

STRATEGIC OVERVIEW

Ministry Mandate, Vision and Goals

The mandate of the Ministry of Environment, Lands and Parks is to maintain and restore the quality of land, water and air, and manage water resources for the optimum health of humans and all living things, now and for future generations. The ministry also helps to provide a safer environment by minimizing environmental hazards. The ministry supports human social, recreational and settlement needs, environmentally sensitive economic development and the sustainable use of resources, and seeks to ensure that the government receives a fair return for the use of public resources.

The vision of the ministry is *an environment that is naturally diverse and healthy, and enriches people's lives.*

The long-term goals set out below define critical elements in moving towards this vision. The first three goals are fundamental to achieving the stewardship mandate of the ministry, while the fourth, that of Responsive and Adaptive Organization, addresses how the ministry will achieve this mandate. The objectives listed under each goal provide more specific direction to the ministry's programs.

1. **Natural Diversity:** protection, conservation and restoration of a full range of biological and physical diversity native to British Columbia.

Objectives

- Protect, maintain and restore the diversity of B.C.'s ecosystems and landscapes.
- Protect, maintain and rehabilitate B.C.'s native wild fish populations and their habitats.
- Protect, maintain and rehabilitate B.C.'s native wildlife species and their habitats.

2. **Healthy and Safe Land, Water and Air:** clean, healthy and safe land, water and air for all living things.

Objectives

- Anticipate, avoid, reduce or eliminate toxins and wastes reaching the environment.
- Protect and improve the quality of B.C.'s land.
- Ensure a sustained and healthy water resource for B.C.
- Protect and improve B.C.'s air quality, and contribute to meeting global air objectives.
- Reduce the risk of harm to the environment and to people and property from natural and induced events.

3. **Sustainable Social, Economic and Recreational Benefits:** provision of social, economic and outdoor recreational opportunities consistent with maintaining a naturally diverse and healthy environment.

Objectives

- Support job growth and sustainable employment with innovative environmental management and sustainable resource use.
- Provide opportunities for youth education, employment and participation in environmental programs and activities.
- Provide diverse recreational and educational opportunities while protecting B.C.'s cultural, landscape and ecological features and resources.
- Complete land-use plans for the province and preserve and enhance environmental quality in urban and high-growth areas.
- Maintain provincial conservation and environmental standards and promote economic opportunities in treaty processes and on treaty lands.

4. **Responsive and Adaptive Organization:** achievement of these goals through innovative and responsive ministry programs and staff who seek the best results and service for the public.

Objectives

- Use better, different and more diverse approaches to achieve the ministry's first three goals.
- Redefine and adapt all business activities and relationships to deliver the three distinct core business activities and relationships in a more effective manner.
- Foster a work culture of trust, continuous improvement and anticipation of client needs.

Operating Principles

In delivering its mandated responsibilities, the ministry is guided by the following operating principles.

Stewardship	Sharing responsibility for the management of resources and the environment to foster full participation in, and commitment to, sustainability across all segments of society.
Sustainability	For the well-being of future generations, ensuring resources are not used beyond their capacity to be naturally replenished, both in quantity and quality, and maximizing enduring environmental, social, health and economic benefits when resources are used.
Environmental Integrity	Recognizing that all species — human, animal and plant — are dependent on a healthy environment, and that this dependence extends into the future.
Ecosystem-based Approach	Taking a long-term and integrated view of resource systems and management — air, water, land, plants and animals — to ensure ecosystem integrity; recognizing that environmental health, economic health and human health are correlated and interdependent.
Precautionary Principle	Recognizing that where there are threats of serious or irreversible damage, the lack of full scientific certainty shall not be used as a reason for postponing measures to prevent environmental degradation.
Pollution-Prevention Principle	Avoiding, eliminating or reducing the creation, use or release of polluting substances at source rather than controlling or cleaning up such pollutants after they have been created.
User-pay Principle	Expecting users of the environment and resources to pay fair value for the use of natural capital, and to exercise this privilege with care and consideration of other living beings. Further, the responsibility and accountability for resource use and the prevention of pollution rests with the user.
Shared Responsibility Principle	Informing society of the spirit and intent of environmental legislation and regulations, and expecting society to accept appropriate responsibilities in accordance with environmental standards, legislation and regulations.

A Look Ahead: Key Priorities for 1999–2001

Key ministry priorities are areas that warrant special management attention to ensure that appropriate resources, plans, policies and progress-tracking mechanisms are in place to maximize the likelihood of achieving ministry objectives and goals.

Ministry priorities pick out particular aspects of the ministry's goals for emphasis and, by definition, cannot include all the activities that the ministry engages in. The ministry performs a wide variety of additional activities related to its mandate. Many of these operational activities provide essential underlying support to the priorities and are critical to the ministry's success.

Goal: Natural Diversity

Protected Areas and Biodiversity

The ministry will legally designate new protected areas, and develop management plans and databases for each designated protected area. Grizzly bears will receive special conservation and management attention, and a Wildlife Conservation Strategy will be developed. The ministry will continue implementation of the Forest Practices Code, developing landscape unit plans, implementing the Identified Wildlife Management Strategy, designating critical ungulate winter range and special management zones in land-use plans.

Fish Protection

The ministry will implement key regulations of the *Fish Protection Act* for streamside protection and sensitive streams. In partnership with the Ministry of Fisheries and Fisheries Renewal BC, the ministry will develop fisheries recovery plans and compliance and enforcement strategies. The ministry will also spearhead the development of multipurpose water-use plans, and further implement the Canada-B.C. Agreement on the Management of Pacific Salmon Fisheries Issues.

Goal: Healthy and Safe Land, Water and Air

Clean and Plentiful Drinking Water

The ministry will implement actions in response to the Auditor General's report on drinking-water-protection measures in the province. Key elements include creating education tools, aquifer inventory and protection, and data development and monitoring. The ministry will address non-point sources of water pollution and encourage water stewardship.

Clean Air

The ministry will develop and implement plans to address key pollutants, such as urban smog, fine particulates, greenhouse gases and ozone-depleting substances, and will work with the public and other agencies to encourage clean transportation.

Environmental Stewardship

Environmental stewardship initiatives will include enhancing waste recycling and reduction from existing product and packaging stewardship programs. Industry will develop more pollution-prevention plans with the ministry's guidance, and prescriptive permits will be replaced with regulations and other authorizations. The responsibilities of owners for dike and dam safety renewal will be increased.

Goal: Sustainable Social, Economic and Recreational Benefits

Sustainable Jobs

A "Green Economy" strategy will encourage environmental jobs in British Columbia. The ministry will develop partnerships to demonstrate environmental technologies, support reduced energy use and renewable energy initiatives, and encourage the eco-tourism industry. Regulatory processes will be streamlined for better environmental management to support job creation.

Youth and Environment

The ministry will increase youth involvement in ministry and other environmental programs and projects through employment in E-Team environmental projects and by strengthening environmental education activities, such as Eco-Education and BC Parks Interpretive Programs.

Stewardship of Designated Parks

Improvements to campground access in high-use areas, and interpretive and educational opportunities in camping, day-use, back-country and boating areas will enhance the enjoyable use of BC Parks' facilities.

**Supporting
Aboriginal Treaty
Processes** The ministry will meet Delgamuukw legal requirements for consultation with First Nations and support treaty negotiations.

Goal: Responsive and Adaptive Organization

**Adaptive Service
Delivery** The ministry will devote considerable attention to adapting its service delivery to balance workloads with resources, deliver services more efficiently, share stewardship, leverage resources, create a positive work environment, and transform the organization to survive and thrive in the long term.

Adapting to Change

Ever-increasing demands on the use of the ministry's resources, growing public expectations for efficient and effective government services and the need for broader environmental stewardship across society are among the many factors that call for innovative approaches and well-planned organizational change in which all staff can participate. Hence the ministry's fourth strategic goal: to be a responsive and adaptive organization.

In February 1999, a small Adaptive Service Delivery (ASD) Office was set up to work with the ministry's executive, program management and staff, and to support the development of broad change-management and organizational development strategies. These strategies will ensure that the processes and tools are in place for providing clear and consistent leadership, removing barriers that inhibit productive work getting done and engaging staff in a ministry-wide approach to ensuring a healthier work environment.

As well, the deputy minister hosted a small number of staff focus groups on change issues during the first half of 1999. These meetings highlighted the efforts needed to improve administrative, human resource, communication and decision-making systems as cornerstones of constructive change across the ministry.

Focusing staff attention directly on rethinking the way the ministry delivers its specific programs and services will undoubtedly have a direct impact on our stakeholders and the environment. Thus, identifying and completing ASD projects is a critical component of this initiative.

Three broad categories of opportunities for adapting services are being considered: improvements in internal efficiencies; partnership arrangements with stakeholders; and formal arrangements where, if appropriate, the responsibility for service delivery and outcomes is shifted to other organizations.

By the end of the fiscal year, branches, regions and districts had identified over 100 ASD projects, many picking up on innovative processes already under way. A shorter list of 12 projects is now being monitored for twice-yearly reporting to the ministry executive.

Over the longer term, the ministry's relationship with businesses, industries, communities and individuals is expected to shift increasingly towards that of a problem-solver, assisting partners and stakeholders in their own stewardship efforts for the benefit of both current and future generations.

Focusing on Outcomes

A more detailed summary of specific actions for each of the priorities described in the foregoing section is provided in the ministry's *Business Plan 1999-2001*. The business plan also sets out performance measures and targets to gauge future progress on each of these key activities. The full text of this strategic document can be accessed on the Internet at http://www.elp.gov.bc.ca/main/melp_overview/busplan1.pdf.

A further link to the outcomes the ministry is seeking is provided by State of Environment indicators, which measure ecosystem or environmental well-being. *Environmental Trends in British Columbia*, a report released in January 1999, presents recent trends and current conditions in 12 indicator areas, including land protection, air and water quality, waste generation and biological diversity, which gives an overview of the state of British Columbia's environment and progress towards attaining environmental goals. This report can be accessed through the ministry's State of Environment web site at <http://www.env.gov.bc.ca/sppl/soerpt/index.html>. Over time, it will be reissued and updated as significant new information emerges, and new or improved indicators will be adopted when they are needed.

This first *Environmental Trends* report indicates that improvements have been made in several areas of the environment including:

- An increase in the percentage of B.C.'s protected areas, from 6.3% in 1991 to 10.6% by Dec. 1998 and improvements in ecosystem representation — 30 ecosections had over 12% of their area protected at the end of 1998 as compared to 16 in 1991.
- Reductions in the weight of solid waste disposed in landfills and incinerators by 33% per person between 1990 and 1996. This was achieved mainly by increases in the percentage of waste that was recycled from 20% in 1990 to 38% in 1996.
- Between 1990 and 1996, significant improvements in the level of fine particulate matter or PM₁₀ at 12% of the sampling stations; no significant change at 85% and deterioration at one site, although this site still has very good air-quality. Most monitoring stations either never exceeded provincial air-quality objectives for PM₁₀ (38%) or exceeded the objectives less than 15% of the time (59%).
- Toxins in biota, such as PCBs, DDE (a by-product of the pesticide DDT), dioxins and furans, have declined significantly since the late 1970s.
- The reduction of toxic releases into the environment from over 32,000 tonnes in 1993 to approximately 9,000 tonnes in 1996.

In some areas, the indicators show that either the condition of the environment, or impacts on the environment, are worsening. For example:

- Greenhouse gas emissions increased by 15% between 1990 to 1995.
- The number of wells with declining water levels has been increasing, indicating possible overuse of groundwater in some areas.
- Thinning of the stratospheric ozone layer has been greater than normal over south-western B.C. for most of the past six years.

Trends are not available for several indicators. However, of ones that were, their condition highlights the need for action.

- Of 124 water bodies rated for water quality, 9 are borderline or poor. Trend data shows that the quality of water in most water bodies is either stable or improving, although, over the past 10 years, water quality has deteriorated in 7 water bodies.

- 13% of vertebrates and 12% of vascular plants are listed as threatened or endangered by the Conservation Data Centre.
- 13% of forest-dwelling vertebrates and 6% of forest-dwelling vascular plants are listed as threatened or endangered. Freshwater fish dependent on forested ecosystems are of particular concern.
- An estimated 3% of salmon stocks are extinct and a further 13% are at high to moderate risk of extinction. Perhaps most importantly, there is insufficient information for assessment of 43% of the stocks.
- Since the 1950s, several species of wildlife managed for recreational use have been extirpated (i.e., no longer exist in B.C.) or show population declines in significant portions of their historic range.

Improving the quality of the natural environment will require a change in attitude and actions from all elements of society. However, the publication of *Environmental Trends* signals a commitment on the part of the Ministry of Environment, Lands and Parks to be a leading partner in monitoring the state of the environment, protecting the condition of the environment and improving the quality of the environment.

Corporate

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This branch is responsible for delivering eight core communications services within the ministry: communications counsel, communications planning, delivery and evaluation, communications support to the minister, media relations, issues management, professional writing services and coordination of ministerial correspondence.

The branch promotes and supports the ministry's programs by maintaining links with provincial, community and ethnic news media, preparing news releases, organizing press conferences and special events, producing publications and audio-visual presentations, coordinating ministry advertising and public relations, responding to public enquiries, coordinating the development and delivery of the ministry's public information programs and providing communications support for the public consultation process.

Regional communications coordinators, working from offices in Nanaimo, Surrey, Kamloops, Nelson, Williams Lake, Prince George and Smithers, coordinate these functions regionally for all programs of the ministry.

During 1998/99, the branch issued 108 province-wide media releases and 210 regional media releases, prepared 106 ministerial and executive speeches, and provided communications support and coordination for over 150 news conferences and ministerial events.

Issues for which the branch provided communications support included: stewardship of beverage containers and household hazardous wastes, several key announcements resulting from Land and Resource-Management Plans and the creation of new parks and protected areas, including introduction of the *Muskwa-Kechika Management Area Act*, and major wildlife issues such as grizzly bear conservation, the Vancouver Island Marmot Recovery Program and introduction of the Identified Wildlife Management Strategy.

Use of ministry World Wide Web sites, which the branch coordinates, grew by about 50 per cent during 1998/99, and averaged more than 1.5 million visits per month by the end of the fiscal year.

1998 Minister's Environmental Awards

The Communications Branch coordinates the Minister's Environmental Awards, which recognize outstanding contributions to British Columbia's environment by individuals and groups within the province.

The 12 recipients for 1998 included: Bill Turner (Victoria), Wayne Sawchuk (Chetwynd), Ray Lutz (Woss), Ken Lyotier (Vancouver), George Smith (Gibsons), Kids for Ryder Lake (Chilliwack), City of Surrey Parks and Recreation Department and Engineering Department, East Kootenay Environmental Society (Kimberley), Delkatla Sanctuary Society (Masset), Construction Aggregates Ltd. (Sechelt), Bill Darling (Victoria) and Judie Steeves (Kelowna).

Correspondence Unit

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The Correspondence Unit provides central ministry coordination of all the minister's correspondence, which exceeds 20,000 letters per year. During the reporting period (fiscal 1998/99) this group, which previously reported through the Financial and Administrative Services Branch, became part of the Communications Branch.

Corporate Policy Branch

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State of Environment web site:
<http://www.elp.gov.bc.ca/sppl/soerpt/>

Ministry Business Plan 1999-2001:
http://www.elp.gov.bc.ca/main/melp_overview/busplan1.pdf

Reporting to the deputy minister and working with the executive committee and branches in Victoria and the regions, the Corporate Policy Branch provides leadership and services in support of the ministry's goals. The branch holds a unique position by participating in policy initiatives in any area of the ministry's mandate and providing management and analytical services in support of the whole organization.

The branch organizes itself around the following sections and functions:

- Policy, Legislation and Intergovernmental Relations
 - Policy development: analytical and process support on major environmental policy issues.
 - Legislative program management: identifying legislative priorities and managing the annual legislative cycle.
 - Intergovernmental relations: coordinating cross-government relations on behalf of the ministry.

- Planning, Economics and Evaluation and State of Environment Reporting
 - Ministry planning: strategic and business planning.
 - Evaluation: program, policy and project evaluations and performance reporting.
 - Economics: economic and multiple account analyses of major policy initiatives.
 - State of Environment reporting: environmental trend indicators and reporting.
- Aboriginal Relations
 - Aboriginal relations: corporate policy, support, advice and information on aboriginal matters related to the various mandates of the ministry.

1998/1999

Accomplishments

The branch supported the following identified ministry priorities and focused actions:

- Clean Water Strategy and Fish Protection
 - Provided a valuation analysis for water flows devoted to fish protection under interim water orders, in preparation for the development of water-use plans.
 - Coordinated a multiple accounts analysis of streamside protection measures in the *Fish Protection Act*.
- Environmental Stewardship
 - Developed policy options for the Grizzly Bear Conservation Strategy.
 - Completed the implementation of the beverage container strategy.
 - developed performance measures for the Product and Packaging Stewardship Program as part of the Accountability Initiative.
- Sustainable Jobs Strategy
 - Led an inter-ministry team in developing a Green Economy policy for the province.
- Adaptive Service Delivery Framework
 - coordinated the development of a ministry guide to adaptive service delivery.

- Aboriginal Legal Obligations and Provincial Treaty Processes
 - Led ministry support on finalizing the Nisga'a Treaty, which was passed in the Legislature in March 1999.
 - Led a ministry review and response on the Sechelt agreement-in-principle, signed in April 1999.
 - Completed the first draft of revised ministry consultation guidelines.

In addition, the branch

- Managed the ministry's legislative program.
- Led ministry participation in Canadian Council Ministers of Environment activities, including development of the Canada-Wide Accord on Environmental Harmonization.
- Released the *Environmental Trends in British Columbia 1998* report that provides provincial State of Environment outcome indicators.
- Developed the *Business Plan 1999-2001* that helps to set the ministry's long-term direction and short-term allotments.

For more information on the above projects and activities, please contact the Corporate Policy Branch.

CORPORATE SERVICES DIVISION

Headquarters:

Fifth floor, 2975 Jutland Road
Victoria, B.C. v8T 9M1
Phone (250) 387-9878, Fax (250) 387-5669

The Corporate Services Division provides internal administrative, personnel, systems, financial, equity and diversity, freedom of information, and Forest Renewal BC (FRBC) support services to enable the successful delivery of ministry programs.

The division comprises four branches: Human Resources, Financial and Administrative Services, Information Systems and FRBC Management.

Human Resources Branch

Second floor, 2975 Jutland Road
Victoria, B.C., v8T 9M1
Phone (250) 356-9200, Fax (250) 356-7286

Web site:

<http://www.env.gov.bc.ca/hrb/>

The Human Resources Branch provides a balance of human resource services and control to assist ministry programs in achieving their objectives.

The branch provides direct and advisory services in the following areas:

- Recruitment and selection
- Salary administration
- Position evaluation
- Job and organizational analysis
- Master and Component contract administration
- Occupational health and safety/hygiene issues
- Workers' Compensation Injury Claims advice/management

The branch also maintains employee and position records and administers relocations that result from transfers and competitions.

1998/99

Accomplishments

- 49 positions were staffed.
- Revised/expanded the Safety Management and Accident Prevention Program.
- Provided "Managing Compliance: Safety Management Training" to 136 ministry managers and supervisors.
- Provided training in the Corporate Human Resource Information and Payroll System (CHIPS) to regional human resources employees in the training administration module.
- Reviewed and updated the Safety Program to ensure compliance with the new Workers' Compensation Board Occupational Health and Safety Regulation.
- Participated in training courses provided by the Public Service Employee Relations Commission for the Public Service Job Evaluation Plan Internship Program.
- Completed position ratings for 238 positions.
- Completed the implementation of Memorandum of Understanding #11, Appendix H for Biologists, Park Assistant 2's, STO 2's, Conservation Officer 4's, 5's and 7's.
- Provided training in the new Public Service Job Evaluation Plan and job-description writing to headquarters managers of finance and administration.

Priorities for

1999/2000

- Recruitment of new staff as required for ministry programs.
- Continued participation in the staffing management plan to effect the placement of employees whose positions are surplus.
- Production of a health and safety newsletter.
- Develop Intranet web sites for operations and for safety and staff development.
- Regional training in the new Public Service Job Evaluation Plan and job-description writing.

- Creation of a ministry classification web site.
- Continued implementation of the Public Service Job Evaluation Plan and the revised Management Evaluation Plan.
- Re-engineering and implementation of a revised electronic orientation program for employees.

Equity and Diversity Office

Second floor, 2975 Jutland Road,
Victoria, B.C. v8T 5J9
Phone (250) 356-2877 or 356-5800, Fax (250) 356-7286

Web site:
<http://www.env.gov.bc.ca/hrb/ed.html>

The ministry is committed to providing a workplace free from discrimination and harassment, to promoting a work environment which values diversity, and to developing a workforce that reflects the population it serves. Reporting to the Director, Human Resources, the Equity and Diversity Office is responsible for:

- Employment Equity and Multiculturalism program development and delivery.
- Human rights and discrimination complaint case management.
- Coordinating the mentoring program.
- Advising ministry staff, management and executive on matters related to equity, diversity and human rights.
- Administering the Employee Recognition Program.

Employment Equity

1998/99

Accomplishments

- Continued to support the mentorship program, with 14 ministry pairs participating.
- Facilitated "Preventing Harassment in the Workplace" training for 116 new staff.

- Extensive outreach recruitment was completed for all positions posted and the diversity of the applicant pool was monitored by using voluntary declarations.
- Cross-ministry Outreach Recruitment Committees were formed.
- Four designated group members were hired through preferential hiring.
- Staff participated in 12 career fairs.
- Two Public Service Training Program candidates were hired.
- 254 jobs were provided for Aboriginal youth through Environmental Youth Team projects.
- A web site for the Association for BC Government Employees with Disabilities was completed (<http://www.elp.gov.bc.ca/abcged/>).

Multiculturalism

- The ministry is working to provide fair and equitable access to services, programs and opportunities for both staff and clients.
- Pesticide Applicators Certification training manuals and examinations were translated into Punjabi, Chinese and Vietnamese.
- Spirea Universal Trail opened in Golden Ears Park, providing interpretive signs in English, French, German and Cantonese as well as brochures in Punjabi and Japanese.
- Flooding-alert information included briefings for ethnic media, multilingual printed information and a toll-free information line in eight different languages.

Priorities for 1999/2000

- Numerical goals for increasing representation of designated groups have been established.
- Increase First Nations involvement in BC Parks interpretive programs.
- Increase representation of designated groups within the ministry by giving preference to qualified under-represented group members on all auxiliary positions.
- Pilot a "Reasonable Accommodation Request Tracking Process" to track requests and assess if a central budget is needed.

Financial and Administrative Services Branch

Mailing address and general enquiries:

PO Box 9356 Stn Prov Govt
Victoria BC v8w 9M2
Phone (250) 387-9822, Fax (250) 356-9239

Accounts Payable and Financial Systems:

Fax (250) 356-0013

Payroll:

Fax (250) 356-9242

Financial Planning and Reporting:

PO Box 9350 Stn Prov Govt
Victoria BC v8w 9M1
Phone (250) 387-7992, Fax (250) 356-1769

Central Services:

PO Box 9357 Stn Prov Govt
Victoria BC v8w 9M2
Phone (250) 387-9864, Fax (250) 356-9230

Web site:

<http://iwww.env.gov.bc.ca/fin/index.html>

This branch provides for the planning, control and reporting of ministry expenditures, revenues and assets; develops, monitors and analyzes ministry budgets; formulates financial policies; and provides for the development of corporate financial systems and management of financial information databases.

The branch, through Central Services, also provides a wide range of administrative services to support the ministry's delivery of its various programs including facilities and vehicles, telecommunications, warehousing, risk management, postal services and photocopier services.

**1998/99
Accomplishments**

Financial Operations

- Processed 46,600 payments to suppliers and reimbursements for employees (e.g., travel). The number of supplier payments has decreased from previous years because of the change to the Purchasing Card as the main purchasing instrument. There were 18,500 purchases made using the Purchasing Card.
- Expanded use of Electronic Funds Transfer as a method of making payment to suppliers and to employees for reimbursement of travel payments. This has improved the efficiency of administration and increased recipient satisfaction resulting from quicker turnaround in processing invoices and claims.
- Continued to promote use of the government's Corporate Travel Card. Such usage provides additional liability coverage when travelling on business and eliminates the requirement of obtaining temporary travel advances. There are currently close to 750 users of the card within the ministry.
- Processed approximately 70,000 payroll/leave transactions for the period. In addition, 400 retroactive pay adjustments were made resulting from the signing of the 12th Master Agreement.
- Provided support in the administration of 3,850 contracts including 900 amendments.

Financial Planning and Reporting

- Developed and monitored the ministry's budget of approximately \$244 million utilizing fulltime equivalent positions of 2,167 in the direct delivery of services.

Administration

- Completed upgrading of branch technology in order to be Year 2000 compliant.

Revenue, Assets and Policy

- In an ongoing project, continued the implementation of capitalization of assets in the following areas:
 - Heavy equipment (\$4.5 million).
 - Operational equipment (\$2.2 million).
 - Buildings (\$20.3 million).
 - Identifying and quantifying \$20 million (historical cost) for dams and dikes of the province.

This exercise has given the ministry a more comprehensive record of ministry-owned capital assets.

- Coordinated and developed the ministry revenue budget (\$380.0 million) and capital budget (\$3.9 million) for fiscal 1999/2000.

Central Services

- Provided building and communication management services for 2,328 staff in 118 buildings in 60 communities, 692 vehicles, 3,482 telephone lines, 829 calling cards, 196 autotels, 798 portable radios, 48 marine radios, 924 mobile radios, nine high-frequency, single-sideband radios, 97 base stations, two CB radios, 47 repeaters, 560 cellular radios, 93 personal locator beacons, and 1,300 various Fish and Wildlife collars.
- Coordinated training on a new vehicle management system to staff responsible for management of vehicles leased for their programs. The system tracks costs and information related to the vehicles.
- Completed facilities consolidation projects at two locations in Victoria.
- Initiated projects to consolidate office areas at Environment regional offices in Nanaimo, Williams Lake, Surrey, Kamloops and Prince George as a result of staff transfers to BC Asset and Lands Corporation.
- In cooperation with BC Buildings Corporation, initiated development of a facilities financial and project-management database to record and track costs associated with their buildings.
- Carried out radio repeater enhancements to provide greater flexibility and compatibility in the following areas:
 - Changed over the Parks Strathcona District repeater system from a UHF to HF system and replaced or upgraded their mobile and portable radio phones.
 - Adding the Vedan Mountain repeater to the Williams Lake system.
 - Commenced the installation and linking of six repeaters in the Kamloops region.
 - Upgraded and linked three repeaters into the Fort St. John office and replaced 20 mobile radios.

- Trained eight staff to become regional Personal Locator Beacon trainers. This will provide greater access to Personal Locator Beacon training for all ministry staff using these devices and also reduce travel costs.
- Completed Corporate Services Division and branch Business Continuation Plans to ensure minimal disruptions in priority business applications in the event of an emergency or disaster.

Financial Operations

Priorities for 1999/2000

- In an ongoing project, a new financial management system is being implemented for April 1, 2000. This new system, referred to as CAS Oracle Financials, will, among other things, provide:
 - Better reporting of financial information.
 - A single accounting system across government.
 - Cross-government integration of accounts structure.
 - Improved technology, allowing for improved efficiency in operation.
 - Consistency in application of operational procedures.

The project will require an assessment of how financial processes are handled and the impact that the new system will have. Training of financial staff throughout the ministry will be required in order to adopt new procedures.

- Review the Purchasing Card process to identify and take advantage of efficiencies, which can be identified after one year of the entire ministry using the Purchasing Card.

Financial Planning and Reporting

- Implement a new Chart of Accounts. Financial report and control criteria will be completely revised, with comprehensive training provided to all headquarters branch staff and financial staff at nine regional offices and 13 district offices.

Revenue, Assets and Policy

- Expand asset categories to capture additional information (i.e., furniture and equipment, dams and dikes, building occupancy charges). This will also affect financial system configuration and budgeting requirements as these items become reported as capital assets.
- Assist central government agencies in the development of capital asset and capital budgeting policies.

Financial Systems

- Provide wider access to information maintained in the Financial Data Warehouse — a financial repository of historical and current financial information. Using the Discoverer tool, we have been able to provide greater flexibility in reporting as well as providing a powerful analysis tool.
- Train over 100 staff in the use of the Financial Forecast System, bringing the total number of users to approximately 300. The system gives staff access to current budgets, expenditures, commitments, forecasts and variance information at a summary or detailed level. The system gives both financial and non-financial staff the ability to forecast on program budgets in their area of responsibility.
- Complete development of the ministry Travel Voucher System. This system, which is available on the ministry's Intranet site, enables employees to complete and submit claims for reimbursement of travel expenses. This system also allows for direct update to the ministry's financial system.
- Assess the potential effect of CAS Oracle Financials and the new Chart of Accounts on these and other financial systems and the renovations required to ensure continued operation of all required financial systems.

Central Services

- Complete business continuation plans for the entire ministry.
- Complete office consolidation projects at Environment regional offices in Nanaimo, Williams Lake, Surrey, Kamloops and Prince George.
- Complete development and implementation of the facilities' database to record and track costs associated with BC Buildings Corporation buildings occupied by the ministry.
- Link repeaters in the Kamloops region and install a repeater at Bear Flats, linking it to the Dawson Creek area communications system. This will continue to improve and enhance communication in isolated areas.

Information Systems Branch

Second floor, 2975 Jutland Road
Victoria, B.C. v8T 5J9
Phone (250) 387-9608, Fax (250) 356-7297

Web site:

www.env.gov.bc.ca/isb/

This branch provides services for the operation of the ministry's technical infrastructure, the development and management of ministry databases and information management. The stored data consists of both attribute (text and numbers) data and spatial (maps) data. The branch is also responsible for the acquisition, maintenance and ongoing operation of all networks, servers and related equipment.

1998/99 Accomplishments

- The branch worked with regional and district operations staff through the Information Management working groups and specific application development projects to develop an infrastructure that provides efficient access to data through the data warehouse and specific applications.
- The branch developed a data-management framework and worked with the Wildlife Inventory Section, the Fish Inventory Section and the Water Inventory Section to improve business processes supporting the management of inventory data.
- The branch continued to streamline business processes in technology support through the use of a problem-tracking system.
- The branch installed NT terminal servers in regional offices to implement tools that facilitate access to attribute and spatial data at regional and district sites.
- The branch upgraded all regional centres to T1 network links, upgraded the switch and hub infrastructure at all regional sites, provided a mechanism (gold disk 1) to standardize the NT desktop across the ministry and consolidated all LAN servers at the Selkirk site.
- The Year 2000 Project Management Office continued to coordinate, monitor and report on Y2K planning, testing and certification. Various inventories and a Y2K Toolkit were developed.

**Priorities for
1999/2000**

Initiatives in Progress

- *Increased bandwidth to district offices.* The goal of this project is to provide district offices with better, faster networks to allow district staff to participate in the ministry as a "technological peer."
- *Improve MELP district access to applications and data.* ISB is implementing Windows Terminal Server. The solution allows multiple people to use the same server utilizing the Windows NT operation system. Any application running on the server requires a single installation that can serve many people, thus reducing support and software distribution costs.
- *Enhance data sharing via the data warehouses.* Contractors, forest companies and the public require access to data collected by MELP. The ministry is consistently trying to make its data available in an efficient manner to those who require legitimate access.
- *Development of web-based application standards.* With the onset of ministry applications being delivered with the web browser, it is important to develop application development standards for these new systems.
- *Web access to spatial data.* The ability to display data on a map is key to MELP. Delivering electronic maps to every desktop is becoming more feasible. The branch is currently facilitating a number of pilot projects.
- *Single log-on.* This project seeks to eliminate the multiple user identifications and passwords that ministry staff must have to use various systems. Software must be implemented that identifies a user the first time that they log-on and passes on this information to other systems as they are used.

New Initiatives

- *Renew the e-mail system.* Our current e-mail system is over seven years old and has not been upgraded for over three years. Microsoft is slowly withdrawing support for MSMail and this puts the ministry at risk. Microsoft's latest e-mail system, Outlook 98, is available for the desktop.
- *Develop data management standards and procedures for new data types.* There are several new types of data on the horizon (document management, voice, video, electronic signatures). In order to facilitate the dissemination of this new data, it will be important to set standards for collection, storage and dissemination.

- *Implement secure access via the Internet to ministry applications and systems.*
Many applications require access by ministry staff in remote locations and by private-sector partners. It is critical that the data remain secure within the government network.
- *Implement a software distribution and desktop-management tool that facilitates the process of software upgrades on desktops.* The continuing need to upgrade and standardize software on desktops and the rising cost of the human resource component have resulted in a number of automated solutions that permit the centralized distribution of software to remote desktops.
- *Ensure Year 2000 issues are managed so that no disruptions occur.*

Ministry Library

First floor, 2975 Jutland Road
Victoria, B.C. v8T 5J9 (*Main*)

Second floor, 800 Johnson St.
Victoria, B.C. (*Parks*)
Phone (250) 387-9747, Fax (250) 387-9741

Mailing address:
PO Box 9348 Stn Prov Govt
Victoria BC v8W 9M1

Web site:
<http://www.elp.gov.bc.ca/pac/lib/index.html>

The library's mandate is to support staff with the information they need to achieve the ministry's goals. The library provides research and reference services to ministry staff, collects the publications of the ministry and other technical materials and indexes them on a database. The library's resources are also available to other government staff, students, consultants and the public during designated hours or through inter-library loans.

1998/99

Accomplishments

- The Main and Parks online catalogues were converted to a common database on a standard government platform with Web access at <http://elplibrary.gov.bc.ca>.
- New services were introduced to improve access to current information: an electronic table of contents service and Web-based access to databases in the Fish, Wildlife and Habitat subject areas.
- 1,458 documents were obtained for staff from outside sources, over 6,000 items from the library collection were circulated to over 1,600 borrowers.
- The library coordinated input to the new BC Government Publications Index on the Web; 150 publications are now listed for the Ministry of Environment, Lands and Parks.

Priorities for

1999/2000

- The library web site will be revised to make it a more valuable reference tool.

Information and Privacy Office

Fifth floor, 2975 Jutland Road

Victoria, B.C. v8w 9m1

Phone (250) 387-1829, Fax (250) 356-0486

Reporting to the Information Systems Branch, the Information and Privacy Office manages compliance with the *Freedom of Information and Protection of Privacy Act* within the ministry by managing responses to access requests, reviews before the Commissioner and training and by providing ministry policy and procedures where necessary. The office is also responsible for the planning, development, implementation and administration of the ministry records management program.

1998/99

Accomplishments

- 336 requests were processed, as were 12 reviews for the Information and Privacy Commissioner's Office; 11 of these were remediated to successful conclusion. One went to a hearing before the Commissioner and the ministry position was upheld.
- Continued review of the BC Environment Operational Records Classification System (ORCS) in preparation for archival review by Information and Data Management Branch.

**Priorities for
1999/2000**

- Processed more than 3,000 containers of ministry records to government semi-active storage facilities.
- Complete archival review of BC Environment ORCS in preparation for Public Documents Committee review and approval.
- Complete review and analysis of Lands Division operational records business requirements to ensure accuracy of BC Lands ORCS. Prepare any necessary amendments for Public Accounts Committee approval.
- Implement the government-wide records management application Corporate Records Management System (CRMS) in all headquarters and regional offices, including offices of BC Assets and Lands Corporation. This application replaces two existing records management applications.
- Develop and deliver a records management training program for ministry staff.

Forest Renewal Management Branch

First floor, 2975 Jutland Road
Victoria, B.C. v8T 5J9
Phone (250) 356-7611, Fax (250) 356-0985

Mailing Address:

PO Box 9347 Stn Prov Govt
Victoria BC v8W 9M1

In 1998/99, the Ministry of Environment, Lands and Parks partnered with Forest Renewal BC (FRBC) for \$13,000,000 to implement the Forest Renewal Plan. The funds are used to support ministry staff who are assigned to support FRBC-funded activities within the Ministry of Environment, Lands and Parks. The ministry's objectives in delivering the Forest Renewal Plan are to:

- Help to maintain and restore the environmental values of the provincial forests.
- Create direct sustainable jobs in the forest sector and provide training opportunities that increase skill levels.
- Improve forest management by supporting a long-term planned approach to land-based investments and encouraging stakeholder participation.

The Forest Renewal Coordination Office coordinates the Forest Renewal BC initiatives delivered by the Ministry of Environment, Lands and Parks through the Resources Inventory, Enhanced Forestry and Watershed Restoration Programs by providing direction and advisory services for the following:

- Business planning and coordination
- Contracts and contract administration
- Technical standards and training
- Investment planning
- Budget administration
- Program planning and evaluation
- Financial and project reporting
- FRBC asset and inventory control
- Direct liaison with FRBC

The Forest Renewal Coordination Office performs these services for the Watershed Restoration program, and, in addition, provides professional and training leadership for the program.

**1998/99
Achievements**

- Administered budgets and reported on 112 projects approved by FRBC.
- Maintained a provincial eligibility list of contractors/firms qualified to work on watershed restoration and resource inventory projects.

**Priorities for
1999/2000**

- Develop a resource-management plan jointly with the Ministry of Forests by September 20, 1999.
- Issue all required approvals for the 2000 summer field season by April 30, 1999.
- Supply the ongoing administrative, technical information and decision-making support required to support FRBC investments in the land base.

*Environment
and Lands
Headquarters
Division*



ENVIRONMENT AND LANDS HEADQUARTERS DIVISION

The Environment and Lands Headquarters Division establishes priorities for the use, protection and management of the environment and Crown lands. The Division encompasses the Crown Land Registry Services, Resources Inventory Branch, Geographic DataBC and the Environment and Resource Management Department comprised of Air Resources Branch, Crown Lands Branch, Pollution Prevention and Remediation Branch and Water Management Branch.*

Crown Land Registry Services Branch

3400 Davidson Avenue
Victoria, B.C. v8z 3p8

Phone (250) 952-5021, Fax (250) 387-1830

Mailing Address:

PO Box 9375 Stn Prov Govt
Victoria BC v8w 9m5

Web site:

<http://www.elp.gov.bc.ca/clrs/>

Crown Land Registry Services (CLRS) is the trustee for the Crown (public) land records of British Columbia. About 87 million hectares, or 92% of the province's land base, is Crown land. An additional key responsibility of the branch is the role of the Surveyor General, who is responsible for the maintenance of the quality and integrity of the survey structure of the province.

* The Wildlife Branch, which was part of the Environment and Lands Headquarters Division during the reporting period, now reports through the Wildlife, Habitat and Enforcement Division. See that section of this report.

Branch Functions

- Providing leadership in maintaining the provincial cadastral or property boundary framework.
- Managing the Crown Land Registry Information System (CLRIS), a computer system that serves as a corporate repository for surface encumbrances over Crown land.
- Maintaining a repository of 150 years of Crown land grants, and Crown land survey plans.
- Operating the Cadastral Data Management System, a graphic representation of the provincial survey fabric, as well as a number of subsidiary systems, such as the Administrative Boundary Management System.
- Providing leadership through the Surveyor General by maintaining a quality survey structure for the province, carrying out regulatory reviews, serving as the province's Boundary Commissioner, and providing survey program support for the administration of Crown land.
- Providing technical advice and developing land information products to support land-planning initiatives, First Nations land negotiations and environment sustainability programs.
- Providing leadership in developing an integrated cadastral parcel fabric to accommodate all Crown and private parcels in a seamless database (PARIS).

1998/99

Accomplishments

- 178 digital files were sold to private-sector clients.
- In order to ensure certainty of title and Crown land interest, 1,301 survey plans were confirmed.
- 200 sets of survey instructions were issued to British Columbia land surveyors.
- The Surveyor General adjudicated 148 plans, such as natural boundary adjustments, submitted to the Land Title Office for deposit.
- 478 Crown grants were issued in support of regional development, industry, and commercial interests, as well as for the private citizens of British Columbia.

- The Tantalus System became operational, replacing a number of the core legacy applications used by CLRS and British Columbia Assets and Land Corporation (BCAL) staff. The Registry Management component of Tantalus was introduced to CLRS staff in January 1999, while the Disposition Management component was introduced to BCAL staff in February 1999.
- 62 park boundary plans were examined and approved by the Surveyor General and included in the *Park Amendment Act* 1999.
- The ATLAS project advanced this year with the design and development of the database to house-scanned images. Scanning of official plans, Crown grants and field books was initiated with approximately five per cent of the documents scanned.
- The status between Crown and private lands was clarified on areas of interest to the treaty-negotiation process and involved some 100,000 parcels.

**Priorities for
1999/2000**

- Ongoing support, maintenance and enhancement of Tantalus core applications.
- Implementation of the document generator (Autodoc replacements), Corporate Record Management System (replacement for AFIS) and the GATOR query tool.
- Retire CLRS legacy applications.
- Prepare for and initiate Y2K transition plans.
- Upgrade branch technology environment including LAN servers, workstations and other key server components.
- Expansion of the integrated parcel fabric to integrate multiple databases all of the Lower Mainland community (approximately one million parcels).
- Clarification for Crown and private ownership for three treaty-negotiating tables and the Protected Area System.
- Work with the Parks Division on finalizing park boundary descriptions for incorporation in future legislation.
- The ATLAS project will continue this year with the scanning of official plans and Crown grants. The project will also review future links to Tantalus, a mechanism for viewing documents, and an updated look at the future development of the project.

Resources Inventory Branch

Second floor, 2975 Jutland Road
Victoria, B.C. v8T 5J9
Phone (250) 387-1112, Fax (250) 953-3603

Mailing Address:

PO Box 9344 Stn Prov Gov
Victoria BC v8W 9M1

In cooperation with regional offices and the Wildlife, Water Management and Information Systems Branches, this branch provides integrated inventories, mapping and inventory-related information services for wildlife, habitats and water resources to a common standard by carrying out the following functions:

- Leading inventory planning and coordinating the preparation of new inventories and funding submissions (for example, to Forest Renewal BC or the Corporate Resources Inventory Initiative).
- Coordinating inventory programs with the federal government, other provincial agencies, other governments and non-governmental agencies.
- Preparing the methods and standards for inventory collection and the quality-assurance protocols (and, in some cases, performing quality assurance).
- Leading and facilitating data-management processes.
- Constructing and operating the provincial inventory databases.
- Developing standard analytical products and supporting their use.
- Providing certain resource mapping products (e.g., habitat inventory) and assisting regions and programs in the development of map products.
- Providing specialist reports, interpretations and advice.
- Managing environmental laboratory activities and standards.
- Operating specialist data and advice centres, such as the Conservation Data Centre, for rare and endangered species information and the River Forecast Centre for flood and drought forecasts.

Water Inventory Section

1998/99

Accomplishments

- Operated the hydrometric network of 500 stations in cooperation with Environment Canada and established a test and training hydrometric network of eight stations.
- Provided coordination and technical and planning support to regions in delivering water quantity and water-quality inventories.
- Completed curriculum development for the Resource Inventory Committee standard for hydrometric surveys and initiated the curriculum for automated water-quality monitoring.
- Provided hydrology expertise to regions and private consultants, reviewed two regional development projects in the Skeena Region and published the report, *Streamflow in Southern Interior Region*.
- Developed web access for the Water Quality Data Management System and completed the design of Hydrologic Data Management System.
- Operated the snow survey network of 244 stations, and published data in the *Snow Bulletin* on the World Wide Web.
- Provided flow and volume forecasts and provided flood warnings during flood season.
- Completed Water Information Sharing map conversion quality control for all of the province, implemented GIS and Oracle Access Tool (GOAT) for water-program staff and created an aquifer template for groundwater GOAT users for aquifer classification mapping.
- Completed 12 water surveys of channels, reservoirs, flood-protection works and other specialty projects, surveyed all provincially owned dams and dikes and provided historic survey data to government agencies, consultants and the general public.

**Priorities for
1999/2000**

- Continue to automate the snow survey network by converting manual snow stations to automatic snow pillows.
- Complete a pilot hydrologic data-conversion project in one region.
- Complete Water Quality and Hydrologic Data Management Systems design, and Y2K-proof all systems.

- Re-activate the Aquatic Inventory Task Force and coordinate aquatic inventories and information systems with water quantity, quality, fisheries, groundwater, etc.
- Develop a renewed federal-provincial floodplain-mapping program, and approach the local and the federal governments for their participation.
- Develop a long-term strategy for the surveying function.
- Involve survey staff in hydrometric station de-commissioning and assist in responding to flood emergencies as required.

Wildlife Inventory Section

1998/99

Accomplishments

- Updated red and blue list for B.C. vertebrates; responded to over 1,400 phone data requests and prepared 666 custom reports for clients, compiled 350 rare animal sites and 1,450 rare plant sites into Conservation Data Centre database. Completed four plant community accounts for Identified Wildlife.
- Wrote four Species/Ecosystems at Risk Brochures, two volumes of *Illustrated Flora of B.C.*, *Rare Reptiles, Amphibians, and Mammals*, *Rare Native Vascular Plants of B.C.* and six vascular plant status reports.
- Completed broad ecosystem (1:250,000) mapping and digitizing for the North Cascades Grizzly Bear Study Area, wildlife interpretations added to Iskut, Kalum, Bulkley, Queen Charlotte Islands and Vancouver Island areas, completed Northeast Bison capability analysis to guide bison re-introductions.
- Quality assurance done for 60 terrestrial ecosystem and wildlife habitat mapping projects. Completed 13 Resource Inventory Committee (RIC) species inventory, assisted regions with quality assurance for species inventory, prepared a draft, *Rare Ecosystem Inventory Methodology*, with accompanying draft field guide to rare forested ecosystems.
- Completed the Species Inventory Database; data can now be collected and entered in regions and accessed throughout the province.
- Completed the first release of the web-based Inventory Project Tracking System and the wildlife capability/suitability analysis application for the *Broad Ecosystem Inventory*.

**Priorities for
1999/2000**

- Completed the data system for storage and analysis of data on rare and endangered species populations and habitats in B.C., which will automate the filing of up to 1,000 data requests per year.
- Mapped ecosystem units of the Cascade Mountains for international grizzly bear conservation management. Participated with adjacent states and provinces in identifying high-priority conservation sites at the ecoregion level and in data-management training for their conservation data centres.
- Participate in providing information to the National Accord on Endangered Species and develop a rare and endangered element data system.
- Complete the Broad Ecosystem Inventory (1:250,000) updating and re-mapping to provide a seamless provincial data set with wildlife ratings for big game species.
- Provide an elk habitat map and data for the East Kootenay Elk Plan; and provide Broad Ecosystem Inventory maps to the Northern Cascade Grizzly Bear Recovery Project (a B.C./Washington project); and for the Rocky Mountain Grizzly Bear Project (a B.C./Alberta/Montana/National Park/U.S. Fish and Wildlife Service Project).
- Map terrestrial ecosystems and wildlife habitat of Sooke Hills Park for Capital Regional District Parks and map sensitive ecosystems for the Central Okanagan and Sunshine Coast Regional Districts.
- Create new red and blue lists for selected invertebrate groups (butterflies, dragonflies, freshwater mollusks); write *Rare Birds of B.C.*
- Prepare species accounts and management guidelines for selected species in *Volume 2 Identified Wildlife*.
- Publish *Standards for Ecosystem Mapping from Vegetation Resources Inventory* and provide Version 1 *Standards for Predictive Ecosystem Mapping*.
- Assist regions in producing ungulate winter range mapping standards to comply with the Forest Practices Code; complete Wildlife Habitat Areas digital data standards.
- Provide Wildlife Species Inventory data system and infrastructure to support forest management decision-making.
- Begin data conversion of 80 FRBC Terrestrial Ecosystem and Wildlife Habitat Mapping projects for the provincial data warehouse.

- Provide seamless coverage of rare-element information to the Internet and data warehouse.
- Work with the USDA Forest Service (Alaska) to map ecoregions and biogeoclimatic zones across shared borders; work with Montana and Natural Resources Canada to produce a map of ecoregions and vegetation zones for British Columbia, Alberta, north-western Montana, northern Idaho and Washington, and with the American Natural Heritage Programs to cooperatively develop conservation priorities by ecoregion; and work with Agriculture and Agri-Food Canada to map and describe ecoregions in northern British Columbia and southern Yukon.
- Participate in international work to design new databases for rare elements.
- Complete the *Conservation Manual for Vancouver Island Sensitive Ecosystems*.

Laboratory and Systems Management Section

1998/99 Accomplishments

- Improvements were made to Environmental Monitoring Systems (EMS) and the Electronic Laboratory Requisition System (ELRB), including computer-based training modules, enhanced internal reporting, compliance reporting using ministry data, and Internet access for permittees to their own data.
- The Water Information Sharing System (WINS) Integrated Access pilot was implemented, and responsibility for WINS was transferred from Laboratory and Systems Management to the Water Management Branch.
- The section coordinated Y2K compliance activities for the Resources Inventory Branch, and a successful major Unix upgrade for Geographic Information Systems for the Resources Inventory Branch.
- Two branches (Wildlife and Crown Lands) were integrated into the LAN network, an expansion of approximately 30 per cent. Support was provided to a network of some 450 microcomputers, including numerous upgrades to hardware and software. Migrated all LAN identifications, electronic files and e-mail from various branch servers to centralized servers. Four thousand two hundred alerts were serviced.

- Ongoing management of service contracts with Pacific Environmental Science Centre, Fraser Environmental and JR Laboratories was carried out to ensure that these contract laboratories met their contract obligations. A number of "Split Sample" Performance Reports were issued to assist regional staff in their efforts to assess permittee data quality. The first steps were taken towards revision of the Environmental Data Quality Assurance (EDQA) Regulation to integrate EDQA inter-laboratory, proficiency-evaluation studies.

**Priorities for
1999/2000**

- Provide ongoing maintenance and support to the EMS/ELRS and WASTE data-management systems.
- Complete Unix amalgamation project at the Selkirk site in Victoria.
- Perform ongoing support of 425 microcomputers, including upgrades to hardware and to software.
- Implement migration to ITSD Exchange server.
- Integrate the EDQA Inter-Laboratory Studies with the laboratory certification program administrated by CAEAL.
- Initiate discussions with Environment Canada towards negotiating a new laboratory services contract, to replace the present agreement due to expire on December 31, 2000.
- Revise the ministry's *Legal Sampling and Analytical Guideline Manual* to reflect new developments in legal sampling and analytical protocols.
- Implement co-operative development between L&SM and PESC of a pilot set of Performance Based Methods (PBM) for Chemical Analysis Protocols.
- Publish supplements to the permittee editions of both the *Laboratory Manual* and the *Field Sampling Manual*.
- Continue ongoing management of activities relating to the EDQA Regulation, including maintenance of a database of laboratories seeking registration or maintaining registration.

Geographic Data BC

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Geographic Data BC (GDBC) comprises three sections: Operations, Client Support Services and Program Services.

Branch Roles and Responsibilities

- Setting standards for base mapping and land-related information systems and for related remote sensing and survey control functions in the province.
- Managing the official coordinate reference system in B.C., consisting of 50,000 monuments and 10 ground stations for satellite positioning used for engineering, navigation and mapping.
- Provision of standardized base mapping, including the three-dimensional Terrain Resource Information Management (TRIM) program, Baseline Thematic Mapping of Present Land Use, the Digital Road Atlas and the TRIM Watershed Atlas for extensive use by government, industry and the public.
- Naming geographical features in B.C.
- Managing the provincial Aerial Photography Program to acquire air photos to meet the operational needs of the provincial government. An air photo library and a reproduction laboratory ensure access to these resources by the public and private sectors.

1998/99
Accomplishments

- The *Digital Road Atlas* program concentrates on the information needs for the 604 area code region (Vancouver — Lower Mainland) for Emergency Communications for Southwest British Columbia Incorporated, and for Elections BC on a province-wide basis. A database of road network geometry plus address ranges, street names and navigation information is being developed.
- The *TRIM Watershed Atlas* shows the position of watershed boundaries, hierarchical stream networks and heights of land. A full set of watershed boundaries was completed in September 1998.
- The *Watershed Ranking Tool*, a software tool, was built to create GIS and spreadsheet summaries of each watershed in the province. The Tool is based on TRIM, Baseline Thematic Mapping, and other government data sets. It provides decision-makers with easy-to-use summarized facts about the land and water resources of B.C. on a watershed basis. Provincial coverage has been completed for the 18,000 watersheds identified across the province; each watershed has 400 relevant statistics associated with it. Paper maps (bound into 12 books) have been created as a complementary product to the statistics calculated for each watershed.
- *LandData BC* is an Internet-based, land-related, data-ordering system developed as a strategic initiative to establish the technology, standards and procedures necessary to share land-related information among government, industry and the public.
- *TRIM Enhancement and Update (TRIM II)*: In cooperation with forest industry companies and the Ministry of Forests, the ministry used funding from Forest Renewal BC to provide updated and enhanced TRIM mapping coverage for the Prince George and Cariboo Forest Regions. The forest industry is the lead proponent, with program management carried out by Geographic Data BC. Eight-hundred-fifty TRIM base maps and ortho-photos were produced, as were 188 ortho-maps (1:20,000); 1,200 maps at 1:10,000 scale were also produced. Preliminary discussions continued with other regions in order to establish similar arrangements for production of TRIM II mapping coverage where a need exists. Some initial work was done towards establishing data-exchange agreements with clients. Once in place, these agreements will facilitate maintenance and the updating of TRIM II data.

- *Baseline Thematic Mapping:* The final 18 map sheets were finished to complete Present Land Use Mapping of the province. This data provides a cost-effective solution for the identification of land-use change using satellite-based imagery acquired between 1992 and 1997. Eight maps were completed for the Georgia Basin area, showing the difference in land use that has occurred over the past four to five years.
- *Aerial Photography Program:* 24,503-line km (47%) of the 51,783-line km set for the 1998 program was completed. The overall program was smaller this year due to budget restraint, which affected government ministries including the Ministry of Forests — a major program client. Much of the program was situated in the Prince George Forest Region — one of B.C.'s worst photo weather areas. This limited the amount of flying that could be done. The line kilometres are equivalent to 16,259 air photos. The Reproduction Laboratory printed 81,458 black-and-white air photos, 74,143 colour air photos and 8,027 film diapositives during the year in response to customer requests.
- *Geo-Spatial Reference System:* The Global Surveyor™ continued to provide real-time positioning service based on global positioning system technology. Global Surveyor™ is targeted to meet the 1- to 10-metre positioning needs of the resource sector. The distributor network now has five outlets in B.C. and four in Alberta. There are approximately 30 annual subscriptions and 35 monthly rentals of the service. Geographic Data BC is working with the Ontario Ministry of Natural Resources and Natural Resources Canada to promote the establishment of a national real-time positioning solution based on MSAT. An agreement was signed in late 1998 with the Capital Regional District, covering the Greater Victoria region, to deliver an extension of the B.C. Active Control System to support few-centimetre-level, real-time positioning. Two Active Control Points are being established this summer and a comprehensive program to establish a 3-D, high-precision datum is under way. Real-time access to RTK messages (RTCM format) will be available by summer 2000, and full-system operational capability is planned for December 2000.
- *Geographical Names:* Work continued on the effort to add historical information of place names to the BC Geographical Names Information System database. This self-serve, Internet-based system is proving a useful tool for disseminating information on B.C.'s geographical names. Work continues with First Nations to reflect traditional culture and land use through place names. Participation continued in treaty-negotiation support and drafting nomenclature components of various agreements-in-principle.

**Priorities for
1999/2000**

- Enhance land and resource management by mapping changes in provincial land use through satellite monitoring.
- Implement the Watershed Ranking Tool as a periodic measure of environmental performance, with initial coverage of the province completed by March 2000.

Environment and Resource Management Department

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The Environment and Resource Management Department is made up of five branches and one section, with the following functions.

- The Air Resources Branch develops, implements and manages comprehensive air-quality assessment and protects and improves air quality.
- The Crown Lands Branch is responsible for land-acquisition programs and policy development for Crown land management and administration of the Crown Land Special Account (CLSA).
- The Pollution Prevention and Remediation Branch is responsible for developing and implementing environmental management systems within the municipal, industrial and small-business sectors, based on the pollution prevention hierarchy.
- The Water Management Branch develops and implements standards, programs and strategies in the areas of water allocation, water quality, groundwater management and public safety.
- The Finance and Support Services section provides overall financial and administrative support to the branches within the department.
- The Wildlife Branch designs, implements and manages programs to conserve and protect provincial wildlife resources and their habitats.

Air Resources Branch

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The Air Resources Branch works to achieve and maintain clean and healthy air for present and future generations of British Columbians. The branch provides leadership, technical and scientific expertise, and resource-management tools to address local, regional, provincial, national and international air-quality issues. It does so through partnerships with other levels of government, industry, stakeholder groups and the public.

The Air Resources Branch develops legislation, regulations, policies and guidelines to address air-quality issues, which include global climate change, smog, vehicles and fuels, stratospheric ozone depletion, fine particulates and smoke.

The branch aids the ministry's regional offices through policy development, scientific and technical services for air monitoring, data management and reporting, auditing of regulated ambient- and emission-monitoring systems and environmental impact assessment.

It also helps regional and local governments with airshed planning and management by providing ambient air and emission guidelines, emission inventories, monitoring, data management and reporting, education, and scientific and technical expertise.

Global Climate Change (Greenhouse Gases)

1998/99

Accomplishments

The Government of British Columbia is taking a three-pronged approach to address global climate change:

1. Participation in developing the National Implementation Strategy on Climate Change, which is aimed at meeting the greenhouse gas (GHG) emission-reduction targets of the Kyoto Protocol.
2. Provincial consultation and leadership, through the Assistant Deputy Ministers' Climate Change Committee and the B.C. Greenhouse Gas Forum.
3. Early actions to reduce GHG emissions based strongly on the Greenhouse Gas Forum's recommendations.

During 1998/99, the Air Resources Branch:

- Developed a plan for early actions to reduce GHG emissions through the B.C. Greenhouse Gas Forum.
- Continued to spearhead the national Greenhouse Gas Emissions Reduction Trading (GERT) Pilot, which is testing the effectiveness of using emission trading to decrease GHGs.
- Participated in the process to develop the National Implementation Strategy on Climate Change (10 B.C. government ministries and/or agencies are members of the process's 16 issue tables and working groups).
- Worked with the Ministry of Finance, BC Buildings Corporation and BC Hydro to develop an energy retrofit program for public buildings.
- Developed and delivered a number of education and awareness initiatives in partnership with a variety of partners — including Clean Air Day, the Canadian Climate Change CO₂ Calculator, and new climate-change materials for schools.

Cleaner Transportation (Smog, Fine Particulates, Climate Change)

British Columbia is the first province in Canada to introduce tough initiatives and regulations aimed at decreasing harmful vehicle emissions and promoting alternative, less polluting vehicles and fuels. These initiatives are complemented by significant investments in transportation infrastructure to support cleaner modes of travel, such as cycling, carpooling and public transit. In 1998-99, the Air Resources Branch worked on a variety of fronts to expand upon the province's cleaner transportation efforts:

- Developed proposals for improvements to the AirCare program, which will take effect after the first contract expires in September 1999. Preparations were also made to transfer the AirCare program to the new regional transportation agency, TransLink.
- Launched the mandatory phase of AirCare OnRoad (formerly known as the Heavy-Vehicle Smoke Prevention Program), following the pilot phase, which started in early 1996. During the pilot program, AirCare OnRoad tested smoke emissions from over 4,000 trucks and buses in the Lower Fraser Valley.
- Completed a review in December 1998 of the *Motor Vehicle Emissions Reduction Regulation*. This set the stage for a project that is assessing the pros and cons of adopting U.S. or California emission standards for the post-2004 period (involving both smog-producing and GHG emissions).
- Worked with automobile dealers and other partners on the launch in November 1998 of an expanded Scrap-It program. Revisions to the program, which offers motorists incentives to retire their older, high-polluting vehicles, make it easier for motorists to qualify and offer incentives for a broader choice of cleaner transportation options — including bicycles, bus passes and vanpool membership.

Stratospheric Ozone Depletion (Ozone-Depleting Substances)

A priority identified in last year's annual report was to expand the scope of the Ozone-Depleting Substances Regulation, with the emphasis on strengthening recycling and phaseout requirements, and including hydrofluorocarbons (HFCs) as controlled substances.

During 1998/99, the Air Resources Branch:

- Prepared an initial draft of amendments to the Ozone-Depleting Substances (ODS) Regulation and completed its stakeholder consultation on the proposed changes. The main emphasis was on including HFCs as controlled substances and strengthening industry's stewardship of ODS (collection and recycling).
- Published and distributed industry halon-management reports for 1995 to 1998, and two fact sheets on the ban on ODS in motor-vehicle air conditioners.

Smoke (Fine Particulates)

The ministry continues to be committed to reducing smoke and fine particulates from the main provincial sources; to this end, the Air Resources Branch took the following actions:

- Amended the Open Burning Smoke Control Regulation to clarify and enable easier enforcement.
- Organized a wood ethanol workshop (May 1998) and established the Wood Ethanol Technology Committee (fall 1998). In these forums, industry and financial representatives considered options for the commercial production of ethanol in British Columbia.

Emission Standards and Inventory

The ministry runs an atmospheric monitoring program across the province, which includes ambient air quality (gases and fine particulates), meteorological conditions and precipitation chemistry.

During 1998/99, the Air Resources Branch:

- Completed two backcast/forecast contracts for the 1985-2020 period, based on the 1995 Provincial Emission Inventory.
- Posted the 1995 Provincial Emission Inventory for common air contaminants and fine particulates on the Air Resources Branch web site.
- Participated in drafting the *Mushroom Composting Pollution Prevention Regulation* with the Pollution Prevention and Remediation Branch.

Public Education and Communication

In the early 1990s, the Air Resources Branch made a commitment to a greater emphasis on communication and education — to get the clean-air message out and encourage people to “become part of the solution.” This commitment remains strong, and included the following:

- Launched a revised and reorganized web site, with updated materials.
- Publicized and coordinated B.C.’s sixth annual Clean Air Day, in which over 70 B.C. communities took part.
- Worked with various partners on several projects (such as the Energy Aware Committee, the CO₂ Calculator and Clean Air Day) to increase public understanding of climate change and encourage GHG-reduction actions.
- Supported the development and delivery of climate-change teaching materials for schools, as well as the creation of a climate-change poster, through the B.C.-Yukon Climate Change Committee.

Priorities for 1999/2000

- The Air Resources Branch and other provincial agencies will work to carry out the B.C. actions in the National Implementation Strategy on Climate Change, after the strategy has been approved by the Joint Ministers of Energy and Environment. In addition, the branch will continue to work with the B.C. Greenhouse Gas Forum and other agencies to implement further GHG-reduction measures.
- The branch will focus on cleaner transportation as an opportunity to reduce smog (ground-level ozone) and fine particulates, as well as GHGs. It will continue to take part in the federal-provincial effort to develop Canada-wide, air-quality standards for ozone and fine particulates, with a completion date targeted for 2000/01. The branch will also encourage clean transportation measures to complement the Motor Vehicle Emission Reduction regulation.
- Amendments to the Ozone-Depleting Substances Regulation (described above) are being prepared. The branch will continue working with the federal government and other partners to reduce emissions of ozone-depleting substances, in conjunction with the goals of the Montreal Protocol.
- The branch will review and re-align its air-monitoring activities to maximize efficiency and reduce costs.

- The branch will continue its commitment to public education on air quality. In particular, it will participate with partners in public and school communications, as well as outreach projects focused on climate change; it will also encourage actions to reduce Greenhouse Gas Emissions and further develop its web site.

Crown Lands Branch

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Branch Roles and Responsibilities

The use of Crown land is a fundamental part of the environmental, social and economic fabric of the province and is integral to the continued development of the province through the provision of lands for settlement, commercial, industrial and conservation purposes. Crown land comprises 92% of the province's land base. These uses support economic development and employment opportunities throughout the province.

The Crown Lands Branch is responsible for operational policy, legislative amendments, and legal tenure documentation to facilitate the effective management of Crown lands. The branch supports the regional delivery of Crown land functions undertaken by British Columbia Assets and Land Corporation (BCAL). The branch also conducts Crown land appraisals, acquisitions and exchanges in support of provincial priorities, such as the Protected Area Strategy.

In 1998 the responsibility for tenuring, pricing and the development, marketing and sale of Crown land was delegated to BCAL.

Commercial Recreation

1998/99

Accomplishments

The reviews of the interim Commercial Backcountry Recreation policy were completed in 1998. The revised Commercial Recreation policy to promote and provide guidelines for eco-tourism activities on Crown land was adopted and is being implemented.

System Development (Tantalis)

The Tantalis project, led by Crown Land Registry Services Branch, will replace the existing Crown Land Registry Information System. The branch is working with the Tantalis design team to ensure that Crown land policy, pricing and legal documentation issues are addressed in the new system. In support of the implementation of this system CLB has assisted with the development of an automated tenure issuance process to reduce the time requirements for the development of tenure documents. The branch has also revised legal documentation language to provide documents that are user-friendly and reflect the current legal requirements for tenure administration and tenure holders.

Federal Divestiture of Airports, and Ports and Harbours

The branch continued to support regional offices in the orderly transfer of provincial Crown land to local governments as a result of the divestiture of airports, ports and harbours to the province. This involved consultation with local governments, the federal government and provincial government agencies to develop policy direction for these divestitures. The branch also continued to work with Transport Canada to complete the transfer of administration, control and benefit for all Crown lands necessary for air-navigation purposes to the federal government.

Oil and Gas Commission

The branch, in cooperation with regional staff and the Crown Land Registry Services Branch, provided support to government respecting the transfer of responsibilities for oil and gas Crown land tenures to the Oil and Gas Commission.

Shellfish

In November 1998 the province announced the Shellfish Development Initiative. The goals of this initiative were to double the area of Crown land provided for shellfish farming, enable the expansion of existing tenures and to reduce the economic barriers to entry to this industry in support of economic development of coastal communities. In cooperation with the Ministry of Fisheries and BCAL, the branch is revising the shellfish policy to achieve these critical program objectives.

Acquisitions

The Real Estate Services Section assisted in the acquisition of critical properties required to complete the Protected Area Strategy, to complete the provincial park system, and for habitat conservation and other provincial interests. These acquisitions included:

- Under the Vancouver Land Use Plan (Goal 1 and Goal 2), successful acquisitions via exchange or purchase were completed for Haley Lake, Bright Angel, Surge Narrows (Lot 423), Goepel Island (Surge Narrows), San Juan River Estuary, Divers Rossiter Lakes and Somenos Garry Oaks.
- The Pacific Marine Heritage Legacy Program is a partnership between Canada and British Columbia to expand marine protected areas in the Gulf islands. The province on behalf of the program successfully completed the acquisitions of Georgeson Island, the Campbell property and F. Williams Holdings's property on Saturna Island.

**1999/2000
Priorities**

- On behalf of BC Parks, successful acquisitions by exchange, purchase or donation were completed for Halvorson property (Naikoon Park), Horseshoe Bay Development property (Shuswap Lake Marine Park) and Sisson property (Shuswap Lake Marine Park)
- Continued acquisitions for BC Parks, Pacific Marine Heritage Legacy, Lower Mainland Nature Legacy, Vancouver Island Goal 2 Protected Areas, Conservation Projects, Trans-Canada Trail and Pacific Rim National Park Reserve.
- Continue the transfer of federal airports, ports and harbours and navigation aids.
- Continued implementation of the Commercial Recreation Policy.
- Shellfish 2000, a review with Ministry of Fisheries of outstanding issues pertaining to the allocation of rights for shellfish aquaculture and development of policy to support increased shellfish harvesting in the province.
- Completion and implementation of the Contaminated Sites Policy for Crown land.
- Completion of the Recreational Activities Protocol Agreement with the Ministry of Forests, which clarifies the jurisdiction of recreational activities on Crown land.
- Assist BCAL with the commercial alpine ski review.
- Assist BCAL with the fibre-optics policy and pricing review.
- Provide First Nations treaty settlement support by reviewing and providing sign-off for Crown land selection proposals.

Pollution Prevention and Remediation Branch

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Environmental Remediation and Integrated Pest Management Section:

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This branch is responsible for taking a lead role in the development and implementation of industry product stewardship programs and environmental management systems within the municipal, industrial, agricultural and small-business sectors. In addition, the branch administers a province-wide environmental education program with a goal to effect positive changes in the way British Columbians understand and care for the environment. In delivering its objectives, the branch oversees the design, development and implementation of stewardship programs for designated products promotes and facilitates pollution-prevention planning, develops guidelines and standards to protect air, land and water quality, implements a contaminated site remediation system and facilitates the shift from the use of pesticides to using integrated pest-management plans. In designing and developing programs, the branch consults a wide variety of stakeholders and partners, including the ministry's regional staff, other agencies, industry, municipalities, environmental groups, First Nations, local and federal government and the public.

Environmental Stewardship Section

1998/99

Accomplishments

- Oversaw the implementation of the Beverage Container Stewardship Program, whereby the deposit-refund system was expanded to include all beverages, except milk, starting on October 1, 1998. A deferral until October 1, 1999 was granted to polycoat containers and flexible plastic pouches to allow for the development of a viable recycling solution.
- Oversaw the operation of the industry stewardship program for leftover paint. By the end of the year, there were over 100 depots province-wide and the program collected the equivalent of 3.7 million litres of containers.
- Oversaw the operation of the industry stewardship program for the collection of leftover solvents, pesticides and flammable liquids. By the end of the year, there were a total of 32 depots, at least one in every regional district except Central Coast, and the program collected the equivalent of 98,900 litres of containers of flammables/solvents and 30,800 litres of containers of pesticides.
- Oversaw the operation of the industry stewardship program for the collection of pharmaceuticals. Surplus drugs and medicines can be returned by consumers to more than 650 pharmacies in the province and, since the start of the program in November 1996, 16,800 kilograms of waste pharmaceuticals have been collected.
- Managed the Lead Acid Battery Collection Program, which provides incentives for the province-wide transportation of scrap batteries to processing facilities. In 1998/99, the province paid out incentives totalling \$781,301 for the transportation and recycling of 778,002 lead acid battery units or 13,382 tonnes (battery unit = 17.2 kg).
- Managed the Financial Incentives for Recycling Scrap Tires (FIRST) Program, which provides incentives for the province-wide transportation, recycling and end use of scrap passenger, light truck and medium truck tires. In 1998/99, the province paid out incentives totalling \$5.863 million to transport and process over 3 million PTEs (Passenger Tire Equivalents = 8.2 kg).

Information and Education

- Worked with the Recycling Council of BC to deliver the BC Recycling Hot-line service to the public, handling approximately 50,000 calls.
- Delivered the Eco-Education Program, including the Green Team and the Grizz-Ed Team, to over 500 schools and 13,000 students. A new "Water Crew" was piloted this year under the Green Team component, focusing on water stewardship education.
- Managed the delivery of the Eco Ed Environment Youth Team program, resulting in employment for 171 youths, providing work experience and training in fields of environmental education and protection.

Pollution Prevention Section

- A new regulation to protect the environment from emissions from mushroom composting was issued. This regulation had widespread support from all stakeholders and will help to resolve long-standing concerns from people who live near mushroom farms.
- The joint industry/government committee on pollution prevention issued a final report on the results of the Pollution Prevention Demonstration Project. The committee provided recommendations on how pollution prevention should be advanced in the future.
- Organized and delivered the first Demolition Material Diversion Symposium, held in May 1998.
- Completed the Peer Review Process and prepared the first draft of the proposed Organic Matter Recycling Regulation for wider stakeholder consultation.
- Coordinated the nomination of 25 additional sensitive B.C. water bodies as no-sewage-discharge zones under the federal Pleasure Craft Sewage Pollution Prevention Regulation. This brings the total additional sites nominated by the province to 75.
- Provided extensive consultation opportunities for stakeholders respecting the development and enactment of the new performance-based Municipal Sewage Regulation.

Special Waste Management

- The special waste program issued 18 new licences to transport special waste, renewed additional 194 licences and processed over 42,000 manifest forms.

Environmental Remediation and Integrated Pest Management Section

- Accomplished Stage 1 Amendment to the Contaminated Sites Regulation. In addition to updating regulatory standards and making urgently needed improvements to the regulation, the first-stage amendment will enhance the efficiency of contaminated-site management. For example, ministry staff time currently spent on review and recommendation of satisfactory remediation of low- to moderate-risk sites will be substantially reduced with the establishment of a roster of experts. This will result in more time available for inspection and enforcement activities.
- Approved or published more than 20 new protocols, procedures, technical guidance and analytical methods for use at contaminated sites. These new documents will enhance the clarity and efficacy of contaminated-site management in the province.
- Continued to streamline the site registry process, with a resultant increase in system usage.
- In Integrated Pest Management, the first pest-management plans were approved for the forestry sector. These plans use the integrated pest-management approach, which minimizes the use of pesticides and streamlines the approval process.

1999/2000 Priorities

- Continue to enhance waste recycling and reduction from existing product and stewardship programs.
- Streamline authorizations and replace prescriptive permits and regulations with other authorizations and encourage local governments and industry to develop pollution-prevention plans.
- Continue to provide opportunities for public education on environmental issues through the Eco-Education and Grizz-Ed program activities.

- Review the Contaminated Site Regulation and recommend the appropriate amendments to make it more effective.
- Through the Pollution Prevention (P2) Implementation Committee, develop a province-wide strategy for P2 planning at industrial facilities.

Water Management Branch

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The Water Management Branch is responsible for leading management of the province's water resources. The branch implements standards, programs and strategies in the areas of water allocation, water quality, groundwater, public safety, water utility regulation and water use planning.

The branch takes a leadership role in ensuring a sustained and healthy water resource, through modernization of water laws, improvement of policies and procedures, recognition of aboriginal rights and improvement of information systems. A wide range of information and advisory services are also provided to other provincial government agencies, local authorities, industry, water users and the general public.

Branch Responsibilities

- Issuance and regulation of water licences for major power developments, independent power producers and water users' communities, administration of the *Water Act* and *Water Protection Act*, collection of water licence fees and rentals, operation and maintenance of water-management information systems, input to reviewable projects under the *Environmental Assessment Act*, support to the water licencing appeal process and technical support to inter-jurisdictional, water-resource agreements.
- Protocol development for non-point source pollution and ambient water-quality guidelines and objectives, technical advice to protect ambient water quality, preparation of remediation plans and assessments under the *Environmental Assessment Act*, specialized toxicological services, reports on water-quality monitoring programs and coordinating and implementing a drinking water strategy in partnership with the Ministry of Health and other agencies.
- Maintenance of groundwater databases, observation well network, groundwater quality monitoring, hydro-geological mapping and quantity and quality assessments.
- Assessment and monitoring of dams and dikes to ensure proper design, construction, operation and maintenance, development of floodplain management standards and corporate engineering support to dam safety, dike safety and standards development activities and emergency planning, preparedness and response.
- Reviewing and making recommendations to the Comptroller of Water Rights on applications for new and amended Certificates of Public Convenience and Necessity, applications for new and amended water rates, establishing and maintaining trust funds, inspecting and monitoring the operation and maintenance of the water systems and investigating complaints by customers and applicants for service.
- Monitoring the application of the Water Use Plan Guidelines for large-scale water facilities, participation in water use planning processes, development of interim orders for hydro-power facilities in recognition of social and environmental values and administration of completed plans for the Comptroller of Water Rights.

- During 1998/99, the branch focused on the following key areas: groundwater protection, water use plans and conservation, the provincial clean water strategy, new drinking water standards, community watershed protection, local stewardship groups, public safety and implementing the *Fish Protection Act*.

Water Allocation Section

1998/99

Accomplishments

- Collected water licence rental revenues of \$306 million.
- Reduced administrative costs for collecting water-rental revenues by extending the rental period for small accounts to three years.
- Increased client convenience by making water-rental bills payable at banks and other financial institutions.
- Completed a number of water-rental billing efficiency automations.
- Produced a Water Conservation Strategy for British Columbia in cooperation with an interagency committee. Produced the *Water Use Efficiency Catalogue* of local initiatives throughout the province. Developed a partnership agreement to implement various aspects of the strategy.
- Developed a more streamlined adjudication process for uncomplicated, low-volume, water licence applications and initiated legislative changes to implement it. For some applicants, this process will reduce the length of time it takes to obtain a licence.
- Completed a systematic review of all aspects of the licensing process and identified changes to procedures and technology that will improve client service, data management and record management. The changes will be implemented over a one- to three-year period.
- Completed the mid-year compliance review of BC Hydro interim orders. Approved remission of \$1.5 million of BC Hydro's annual water licence rental fees to provide water for fish.
- Draft regulations and policies pertaining to water allocation decisions under the *Fish Protection Act* were completed for internal review and stakeholder consultation.
- Developed a water strategy for the Sechelt final agreement treaty negotiations.

- Issued the water licence for the diversion of water from the Arrow Lakes for a 170-megawatt power plant at the Hugh Keenleyside Dam near Castlegar. Columbia Power Corporation started construction of the plant in March 1999.
- Issued the water licence for the diversion of water for a fourth unit to be installed at BC Hydro's Seven Mile Generating Station on the Pend d'Oreille River.
- Reached agreement for interim changes to the operation of BC Hydro's Generating Station on the Cheakamus River. Changes for improved flow for fish and are subject to completion of a water use plan.
- Participated in federal-provincial intergovernmental working group on bulk water removals.

Water Quality Section

- Publicly released the provincial Non-Point Source Pollution Action Plan, which provides a framework for managing polluted runoff in B.C. Undertook specific activities to start implementing the NPS Action Plan, such as development of guidelines (e.g., Best Management Practices for road salt) and watershed pilot projects.
- Developed with the Ministry of Health a coordinated drinking water action plan for implementing provincial actions in response to the 1999 Auditor General's report on protecting drinking water sources.
- Established and led a multi-agency Director's Committee to develop provincial programs to protect drinking water.
- Co-led with Environment Canada the Clean Water Planning and Implementation Team under the Georgia Basin Ecosystem Initiative and initiated or participated in Year 1 projects for toxins, liquid waste management planning, shellfish, non-point source pollution and drinking water.
- Conducted a public outreach and education program to raise awareness of non-point source pollution, delivered by Environment Youth Teams in Victoria, Nanaimo and Kamloops, in partnership with local and regional governments.

- Continued joint monitoring under the Canada/B.C. Water Quality Monitoring Agreement at 27 trend-monitoring stations in the province.
- Released two ambient water-quality guideline documents (zinc; turbidity, suspended and benthic sediments) and one ambient water-quality objectives document (*Fraser River from Hope to Sturgeon and Roberts Banks — First Update*).
- Continued to work with the Canadian Council of Ministers of the Environment to develop a national Water Quality Index based on B.C.'s Water Quality Index, and with Environment Canada to finalize a national program to protect the marine environment.
- Co-led, with Washington State, the Puget Sound/Georgia Basin International Task Force under the Environmental Cooperation Council. The task force coordinates action plans for habitat, marine protected areas, marine plants and animals, non-indigenous species and other issues requiring a cooperative effort on both sides of the border.
- Participated in the System-Wide Dissolved Gas Abatement Group for the Columbia River.

Groundwater Section

- Continued to enhance groundwater inventory activities, finalized water well data management report with BC Groundwater Association, updated 53 well location maps, secured 1,757 new well records and established two observation wells.
- Extended the aquifer classification system to identify 350 aquifers throughout the province, and provided advisory assistance to local communities, such as Grand Forks, in developing aquifer management plans.
- Initiated development of a pilot and voluntary groundwater protection program on Hornby Island in partnership with the Islands Trust and the Hornby Island Local Trust Committee.
- Completed 20 groundwater quantity and quality assessments to assist in water-services planning and protection decisions.

Public Safety Section

- High spring snow packs necessitated a concerted flood readiness effort, including an expenditure of over \$7 million to ensure critical repairs were undertaken in preparation for the freshet. Flood-response training was provided to regional staff and diking authorities, and regional support was provided for construction, monitoring and flood response.
- Responded to the provincial flood risk related to dams and dikes and supported flood-response activities.
- Coordinated and managed the Order from the Comptroller of Water Rights to BC Hydro concerning the WAC Bennett Dam remediation, including Leave to Commence Construction approval of toe berm stage 1.
- Implemented the Dam Safety Renewal Project, including public consultation meetings on the proposed dam safety regulations, publication and distribution of the *Dam Inspection and Maintenance Manual*, developed and delivered inspection and maintenance workshop training, removal of hazardous and abandoned dams and auditing and monitoring of owners' inspections.
- Completed 67 assessments of major dams, resulting in eight rehabilitations and 10 being operated under restrictions.
- Carried out a preliminary review of the Columbia Power Keenleyside Project and developed an approval process with the Allocation Section.
- Administered the \$3-million Flood Protection Assistance Fund, under which 52 projects were completed.
- Prepared the ministry flood safety strategy, which integrates the three elements of proper operation and maintenance of existing diking systems, proactive land-use planning to reduce flood hazards and flood preparedness and response.
- Completed the ministry's *Flood Planning and Response Guide*, *Guidelines for Dike Management* and *Environmental Guidelines for Vegetation Management on Dikes*.

Water Utility Regulation Section

- During the 1998/99 fiscal year there were 158 reports to the Comptroller, resulting in:
 - One Certificate of Public Convenience and Necessity (CPCN) issued for a new utility.
 - 17 CPCNs issued for extensions of service from existing utilities.
 - 18 decisions of the Comptroller on water tariff applications.
 - 58 applications processed for the release of trust funds.
 - 31 Orders of the Comptroller issued.
 - Three transfers of private water utilities to public authorities.
 - Two transfers of ownership.
- Held one public hearing on a Section 99 Utility Seizure and application for a rate increase.
- Developed a revised *Guide to Applying for a Certificate of Public Convenience and Necessity*.
- Partnered with the ministries of Health and Municipal Affairs, and the BC Water and Waste Association, for the development of an *Operator's Manual* for small-community water systems.
- Developed a computerized monitoring system for each utility's trust fund accounts.

Water Use Planning Section

- Established an inter-agency management structure to guide the Water Use Plan (WUP) Program, including representation from federal and provincial agencies and First Nations.
- Obtained approval of a regulation under the *Water Act* enabling the Comptroller of Water Rights to provide \$5 million in water rental remissions to BC Hydro for implementing interim orders to protect fish.
- Issued interim orders for the Coquitlam, Heber, Salmon and Stave Rivers to provide minimum flows for fish while water use plans are developed.
- Participated directly in the Stave/Ruskin WUP process.

- Gave WUP Program presentations to three universities, two international delegations from Chile and the Philippines and three to water-management conferences.

**Priorities for
1999/2000**

- Collect projected water rental revenues of \$297 million.
- Continue monitoring BC Hydro monthly data submissions respecting its diversion and storage of water.
- Complete a feasibility study to renew water corporate applications WRIS/WELLS, which are becoming obsolete.
- Develop amendments to the *Water Act* that will reduce delays in obtaining a straightforward low-volume water licence and improve water use monitoring data.
- Develop regulations, policies and procedures to implement sections of the *Fish Protection Act* pertaining to water allocation decisions.
- Regulate construction and operation of works for power producers/audit compliance.
- Complete policy and procedures to administer water reserves (section 44, *Water Act*).
- Provide advice on water resource management for treaty negotiations.
- Adjudicate four applications for major water licences, monitor construction of the Keenleyside Power Project and complete approval for construction of the transmission line.
- Participate in the review under the *Environmental Assessment Act* on the Cascade and Kwoiek Creek power projects.
- Implement 13 pilot projects under the provincial Non-Point Source (NPS) Action Plan. Finalize and release voluntary guidelines such as the *Best Management Practices Compendium*, and support development of NPS pollution-prevention measures, such as the model bylaw for municipal sewage.
- With the Ministry of Health, implement the Drinking Water Action Plan for drinking water source protection, including research on the impacts of recreation on drinking water quality. Continue to lead the multi-agency provincial Director's Committee to protect drinking water.

- Continue to participate in the Georgia Basin Ecosystem Initiative through partnerships and pilot project development, and lead in implementation of action plans under the Puget Sound/Georgia Basin International Task Force.
- Continue to deliver water education and public awareness programs through the Water Crew component of the ministry's Eco-Education Program.
- Prepare a report on water quality trends in B.C., summarizing results of the Canada/B.C. trend-monitoring program.
- Publish ambient water quality objectives documents for selected priority water bodies and water quality guideline documents for priority parameters
- Publish watershed-management guidelines and supporting documents to assist local governments and local community groups to participate in local-level watershed planning.
- Release the "National Program of Action for the Protection of the Marine Environment from Land Based Activities," in partnership with Environment Canada and the Department of Fisheries and Oceans.
- Continue inventory and classification of aquifers, complete and distribute the well-protection toolkit for groundwater users with the Ministry of Health, enhance the number of observation wells in important aquifers and provide advisory assistance to communities developing groundwater protection plans, e.g., Grand Forks, Hornby Island.
- Complete two community-based workshops on aquifer protection planning in partnership with the Ministry of Municipal Affairs, the Ministry of Health and other agencies.
- Complete two technical guidance documents on (1) *Suggested Framework for a Hydrogeologic Study in Support of an Application for a Project Approval Certificate under the Environmental Assessment Act and Regulations*, and (2) *Evaluating Long-Term Well Capacity for a Certificate of Public Convenience and Necessity*.
- Complete the Dam Safety Renewal Project following proclamation of the Dam Safety Regulations by informing owners of their responsibility to inspect, operate and maintain their dams, presenting workshops on inspection and maintenance of dams, completing the strategy for safeguarding ministry-owned dams and abandoned dams, revising the Ministry's operational procedure manual, completing the database of B.C. dams, finalizing and publishing the *Plan Submission Guidelines*, and supporting and auditing the Regional Dam Safety Programs.

- Undertake regulatory inspections of major dams as required according to the Risk-Based Classification System.
- Implement the flood safety strategy by auditing and monitoring dike-owner inspection reports, working with the Provincial Emergency Program to increase the number of local authorities with current flood-response plans, preparing an Erosion Protection Design and Construction Guide and completing the projects approved under the Flood Protection Assistance Fund.
- Respond to the provincial flood risks as they relate to dams or dikes and support flood-response activities.
- Up to 10 Water Use Plan processes conducted by licensees will be ongoing simultaneously by this fiscal year end. Ministry and WUP section participation and input to the processes will be coordinated for effective and efficient use of agency resources. Complete Water Use Plans will be reviewed for decision by the Comptroller of Water Rights.
- Licence reviews will be done for Hydro facilities undergoing Water Use Plan processes, and resulting licensing issues will be addressed.

*Wildlife, Habitat
and Enforcement
Division*



WILDLIFE, HABITAT AND ENFORCEMENT DIVISION

The Wildlife, Habitat and Enforcement Division comprises the Wildlife Branch, the Enforcement and Emergencies Branch, the Habitat Branch, and the administration of the Habitat Conservation Trust Fund. Prior to mid-1999, and throughout the 1998/99 reporting period, these groups reported through other divisions.

Wildlife Branch

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Branch Roles and Responsibilities

The vision of the Wildlife Program is to maintain the diversity and abundance of native species and their habitats throughout British Columbia, ensure a variety of opportunities for sustainable use and enjoyment of wildlife and balance the needs of wildlife with the needs of people. In cooperation with regional offices, the Resources Inventory Branch, the Resource Stewardship Branch and many other agencies and organizations, the Wildlife Branch carries out the following functions:

- Administering the *Wildlife Act*.
- Providing information and scientific expertise on wildlife species and populations.
- Conducting and coordinating wildlife and biodiversity research on sensitive species, riparian ecosystems and wildlife health.
- Coordinating and administering acquisition of land critical for wildlife.
- Participating in and providing wildlife and wildlife-value information for land-use planning processes and practices, environmental assessments and impact reporting.
- Participating in, or leading recovery teams for species at risk, and evaluating recommendations for recovery plans.
- In consultation with regions and others, coordinating development of species management plans and strategies.
- Preparing all Wildlife Program regulations in consultation with regions and other parties.
- Preparing the hunting and trapping regulations and all hunting synopses.
- Administers the process for licences and permits.
- Collecting and analyzing hunter and harvest data.
- Coordinates British Columbia Wildlife Watch (wildlife viewing program).
- Responding to requests from the public and other agencies for wildlife information.
- Coordinating preparation of technical publications and other wildlife and biodiversity-related materials.

1998/99

Accomplishments

- The branch conducted a successful and well-attended Conference on Species and Habitats at Risk, with a diverse range of topics from foremost speakers, followed by a Workshop on Endangered Species in Environmental Education, in Kamloops. The proceedings will be published.
- RENEW (Recovery of Nationally Endangered Wildlife) approved the updated Vancouver Island Marmot Recovery Plan. A number of marmots were moved into the Calgary and Toronto zoos as part of a captive breeding program.

- Under the Grizzly Bear Conservation Strategy, initiated research on grizzly bear gene flow and population fractures in the Kootenays, provided detailed input to the Kalum Central Coast-Lillooet strategic land-use planning process on the conservation needs of grizzly bears, participated in cross-jurisdictional committees including the Interagency Grizzly Bear Committee and the Rocky Mountains Grizzly Bear Planning Committee and completed a DNA inventory of the threatened North Cascades grizzly bear population.
- Conservation concerns resulted in spring grizzly bear hunting being closed in eight areas southeast of Invermere and near Fort Nelson and Fort St. John. Other areas of the Peace, which had previously been closed for conservation reasons, remained closed for the spring 1999 season.
- Under the provisions of the Forest Practices Code, the Identified Wildlife Management Strategy was released. The strategy allows for habitat protection for 40 wildlife species and plant communities affected by forest and range practices. The strategy will be implemented as wildlife habitat areas are identified and mapped, their locations made known to licensees, and the information is incorporated into forest development plans. Forest companies will be required to adhere to general wildlife measures when carrying out forestry activities in a wildlife habitat area.
- A study with the University of Alaska on systematics of long-eared bat species in B.C. and Alaska was initiated. The branch also participated with wildlife departments in Washington and Oregon in a Bats of the Pacific Northwest project.
- A report on elk management for the East Kootenays recommended adopting a general open season on six-point bulls from September 10 to October 20, eliminating the previous year's general open three-point bull season entirely, and eliminating the limited-entry hunting season for cow or calf elk. Reports were drafted on a conservation strategy for mountain caribou, a management plan for wood bison, and status reports on Rocky Mountain sheep and California bighorn sheep.
- Ongoing research on the northern goshawk, spotted owl and marbled murrelet disclosed new nest sites and needed insight into their habitat use and requirements. A federal-provincial partnership continued its monitoring of coastal great blue heron colonies. A community-wide volunteer stewardship project in Kelowna has successfully reintroduced peregrine falcons in the southern interior. Status reports for bobolink, long-billed curlew and flammulated owl were published.

- The Riparian Ecosystems Research Program evaluated existing conservation guidelines for stream and streamside ecosystems affected by forest practices and the effects of different riparian management treatments on vegetation, invertebrates, amphibians, fish and small mammals, as well as physical and chemical processes. Harvesting for a study of threatened amphibians, in particular the tailed frog, was completed and an overview document will be published.
- Research continued on the red-listed tiger salamander, and studies were completed on tailed frogs and Pacific giant salamanders, on which reports will be published. The second Riparian Ecosystems Research Program Newsletter was released late in 1998.
- In partnership with the Habitat Conservation Trust Fund, Forest Renewal BC and industry, the Sensitive Species Research Program continued its study into the effects of forestry on wolverine in north central B.C. Monitoring of coastal nestbox colonies of purple martin continued; as a result of outstanding community and volunteer efforts, the provincial purple martin population has risen from near extinction to 200 pairs.
- The Wildlife Health Program assisted with radio-collaring or surgical radio-implanting of caribou, Stone's sheep, moose, Kermode black bear, grizzly bear, fisher and wolverine. Additionally, this program:
 - Helped to investigate Elk Valley bighorn sheep disease.
 - Assisted with an Okanagan bighorn project.
 - Developed forensic animal sampling procedures for use in animal/human conflicts.
 - Under the Vancouver Island Marmot Recovery Plan Project, participated in the marmot captive breeding program and at an international marmot symposium.
 - Participated in a wood bison reintroduction program in north-eastern B.C.
 - Assisted government staff and the public on wildlife disease issues.
 - In collaboration with the Canadian Cooperative Wildlife Health Centre, began a wildlife disease surveillance of northern B.C. with a formal reporting system of events and analysis of specimens.

- An exceptional variety and volume of printed material was released during the year, including publication of volumes 1 through 3 of *Illustrated Flora, Rare Amphibians, Reptiles and Mammals of British Columbia, Rare Birds of British Columbia, Rare Native Vascular Plants* (reprinted), taxonomic catalogues for each of the *Birds, Amphibians and Reptiles of British Columbia*. A Biodiversity in British Columbia brochure and a 1998/99 Supplement to the 1997 Biodiversity publications catalogue were published.
- Ten brochures on species or ecosystems at risk were published, including information about coastal Douglas-fir ecosystems, Townsend's mole, rare grassland plants, mountain caribou, western grebe and sandhill crane.
- Eleven new Bulletins were released including those on the status of the golden paintbrush, the bearded owl-clover, the waterplantain buttercup and the white-top aster in British Columbia.
- New species-at-risk fact sheets were published on the great blue heron, short-eared owl, western harvest mouse, gopher snake, long-billed curlew, Lewis's woodpecker, Coeur d'Alene salamander and Keen's long-eared myotis.
- Four new Working Reports were published on the status of the flammulated owl, the long-billed curlew, and the bobolink in British Columbia, and *An Assessment of Burrowing Owl Reintroduction in the Thompson-Nicola Region: A Summary Report* (1992-97).
- BC Wildlife Watch coordinated the very successful third public Bald Eagle Festival for the Harrison Bay/Chehalis area in December 1998.
- The Biometrics section surveyed 70,000 resident hunters on their hunting activity, completed 3,500 compulsory animal inspections, monitored the provincial trapping harvest and coordinated the ageing for research purposes of over 8,000 big-game teeth turned in by hunters.
- Three new Wildlife Management Areas were designated under the *Wildlife Act*. Midge Creek and Hamling Lakes in the west Kootenay region will help to ensure conservation of key regional wildlife habitat, including the threatened woodland caribou and grizzly bear. Sturgeon Bank, at the mouth of the Fraser River, is a vital link for birds on the Pacific Flyway. Comprising 5,152 hectares of marsh, mudflats and open water, the area hosts the largest wintering waterbird concentrations in Canada in addition to many shore birds, raptors, passerines and songbirds. The area is also significant for the countless juvenile salmon that migrate annually through the Fraser River estuary, using the tidal marshes along Sturgeon Bank for food, shelter and acclimatization to salt water.

- In cooperation with a number of partners, the revised Pacific Estuary Conservation Program to protect and conserve coastal regions was extended until 2003.
- A federal-provincial survey on nature-based recreation was released, *The Importance of Nature to Canadians: Survey Highlights*. The report provides estimates of the level of participation in hunting, wildlife viewing and other nature-based recreation, the length of time spent in these activities, and the associated expenditures and economic values for each province and the Yukon.
- The Canadian Cooperative Wildlife Health Centre completed a review on the use of Compound 1080 in British Columbia to control problem wolves and coyotes. The federal-provincial Peace River Area Waterfowl Crop Damage Prevention Program was successfully completed. In cooperation with the Colorado Division of Wildlife and the B.C. Trappers' Association, 11 lynx were translocated to Colorado for their re-introduction program. The provincial status of wolverine, lynx and bobcat was changed from Small Game to Big Game to better regulate and record the harvest of these species.
- 190,000 Hunting and Trapping Regulations and 130,000 Limited-Entry Hunting Synopses were distributed, two annual limited-entry hunting draws were conducted involving 150,335 applications for 21,342 hunting opportunities. On the basis of cost recovery and under written agreement, the BC Wildlife Federation took over the daily administration of the Conservation Outdoor Recreation Education (CORE) program. This successful partnership has resulted in improvements to the program and the graduation of 3,485 hunter safety training students.

Hunting Statistics

- Basic hunting licences sold to residents: 102,976
- To non-residents: 5,126
- Limited-entry hunting applications purchased: 155,469
- Guide-outfitters were hired by 4,296 hunters (resident and non-resident)
- 233 guide-outfitters were active, as were 960 assistant guides

Priorities for
1999/2000

- Compile a species list for Volume II of the Identified Wildlife Management Strategy.
- Publish the draft conservation strategy for mountain caribou in B.C. for public review, the discussion paper on the elk management plan for the East Kootenay, the management plan for wood bison and status reports on Rocky Mountain sheep and California bighorn sheep in B.C.
- Publish Volume 4 of the *Birds of British Columbia* reference books.
- Publish reports on the following bird species: the American avocet, Lewis's woodpecker in the East Kootenay and the northern goshawk in British Columbia.
- Participate in the Partners in Flight British Columbia and Yukon Program, a new collaborative initiative to conserve all bird species and their habitats.
- Working with volunteer stewardship groups, coordinate release of peregrine falcons in Kelowna and burrowing owls around Kamloops.
- Finalize an addition to the East Side Columbia Lake Wildlife Management Area (WMA). Work will continue towards the designation of several new WMAs, including Roberts Bank, Serpentine, Pemberton Valley, Harrison-Chehalis, McGillivray Slough, Squamish in the Lower Mainland and Cluxewe River on Vancouver Island.
- Release the report presenting the expenditures and economic values due to hunting, wildlife viewing and other nature-based recreation from the federal-provincial survey on the "Importance of Nature to Canadians."
- Coordinate implementation of the Grizzly Bear Conservation Strategy.
- Develop a guide to the Watchable Wildlife Program, the provincial viewing program headed by the Wildlife Branch.
- Coordinate development and implementation of the Vancouver Island Marmot Recovery Plan.
- Continue the northern wolverine research project jointly with research institutions and stakeholders.
- Continue working with public stakeholder groups to study and recover threatened bird species, such as the screech owl and purple martin.

Species and Subspecies at Risk in British Columbia

	<i>Vascular plants</i>	<i>Freshwater Fish</i>	<i>Amphibians</i>	<i>Reptiles</i>	<i>Birds</i>	<i>Mammals</i>	<i>Total</i>	<i>Total from last annual report</i>
Extinct	1	3	0	0	1	1	6	5
Extirpated and historic	33	0	0	3	3		41	7
Red List ¹	241	31	6	5	37	26	346	345
Blue List	354	7	2	5	42	29	439	460
Total at Risk	595	38	8	10	79	55	785	805

¹ Includes extirpated and historic species.

Extinct species or subspecies were formerly indigenous (native) to British Columbia, but now no longer exist: the pink sand verbena, Dawson's caribou, passenger pigeon and three fish — the Dragon Lake whitefish, Hadley Lake benthic stickleback and Hadley Lake limnetic stickleback.

Extirpated species or subspecies were formerly indigenous (native) to British Columbia, and now no longer exist in the wild in British Columbia; however, they do occur elsewhere. These are the western pond turtle, a subspecies of gopher snake, sage grouse, yellow-billed cuckoo and three vascular plants, the rabbitbrush goldenweed, common downingia and Lobb's water-buttercup.

Historic species are species that have not been recorded for over 40 years in British Columbia and may be extirpated or extinct. They include 30 species of plants, the pigmy short-horned lizard, the Lower Mainland subspecies of the long-tailed weasel, the southern red-backed vole and a subspecies of the horned lark.

Red-listed species or subspecies are either designated as extirpated, endangered or threatened, or are being considered for such designation; Blue-listed species or subspecies are those currently considered to be vulnerable or sensitive.

Total at Risk is the sum of the Red and Blue lists only.

Enforcement and Emergencies Branch

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Enforcement Program

The ministry's Enforcement Program (Conservation Officer Service) provides direction, policy and procedural guidance to regional conservation officers. The program provides support to other ministry programs in the development of new legislative initiatives or amendments to existing regimes to ensure the enforceability of new environmental protection laws and participates in interagency and intergovernmental discussions concerning partnership and joint enforcement efforts. In addition, the Special Investigations Unit (undercover) continues to successfully conclude investigations and lay charges for violations that may not be achievable by the ministry's high-profile uniformed staff. The SIU objective is to focus on illegal activities that have the greatest impact on the environment, fish, wildlife, forest and water resources. High-profile media coverage of successful SIU investigations has significantly raised public awareness of environmental crimes.

Projects and Activities

1998/99

Accomplishments

- Approximately 20 program-related policies and procedures were created or revised and distributed to regional conservation officers to provide the necessary updated guidance to ensure consistent enforcement operations, functions and practices.
- Field officers were provided with approximately 1,500 pages of legislation manual updates reflecting revisions to ministry environmental legislation, including the *Forest Practices Code of British Columbia Act*.
- A pocket guide to environmental offences and fines (provincial and federal) was updated and distributed to conservation officers and over 3,000 enforcement officers in other agencies in British Columbia.

Special Investigations Unit

- The SIU carried out approximately 60 investigations of illegal activities that included trafficking in eagle parts, illegal angling guiding, discharge of toxic business waste, falsifying Conservation and Outdoor Recreation Education documents, unlawful sale of non-conforming woodstoves, trafficking in live wildlife and parts of dead wildlife, trafficking in wildlife meat, illegal transport of special wastes, trafficking of bear parts and illegal guiding for big game.
- Several other investigations are ongoing which, in combination with preceding years' files carried forward, resulted in another busy and successful year for the SIU.

Partnerships

- A successful Investigation Protocol was jointly developed and signed by the Enforcement Program, the ministry and the Chief Coroner to facilitate expedient sharing of information when dealing with attacks by wildlife that result in the loss of human life. The protocol aims towards increasing public safety, reducing duplication in the conduct of respective investigations and collecting information to formulate recommendations intended to prevent future deaths.
- Participated with the Department of Fisheries and Oceans in the development of the Enforcement Protocol related to the Canada-British Columbia Agreement on the Management of Pacific Salmon Fishery Issues.

Ministry Business under Adaptive Service Delivery

- The Enforcement Program participated in the review and/or development of several legislative proposals focusing on environmental stewardship. These included:
 - Mushroom Composting Regulation
 - Municipal Sewage Regulation
 - Automotive Dismantling and Recycling Regulation
 - Litter and beverage container provisions under the *Waste Management Act*
 - Wildlife management-related regulations related to hunting

- The Enforcement Program chaired an executive advisory committee in the development and promotion of a Compliance and Enforcement continuum.
- Represented British Columbia in the Canadian Enforcement Chiefs conference held in the Yukon.
- Promoted the Compliance Strategy initiative to the executive and received its support for continuing to promote to the rest of the ministry.

Environmental Emergency Program

The Environmental Emergencies Program provides assessment and coordination of environmental emergency response units located in regional offices. The program prepares provincial-level contingency plans for oil and hazardous materials spills, fosters consistent emergency planning and response management and works with local, national and international agencies and industry.

Projects

1998/99 Accomplishments

- Instrumental in the development of the BC Emergency Response Management System standard for the province and the BC Interagency Emergency Preparedness Council's adoption of the standard.
- Designed and implemented an Internet-base Situation Report for Major Environmental Emergencies.
- Developed a prototype computer-registration process for volunteers and/or members of the BC Oil Spill Workforce who attend a major marine oil spill.
- Developed the BC Oiled Wildlife Rescue and Rehabilitation Organization as a common response structure to be used by either industry or government to manage oiled birds and mammals.

Partnerships

- Developed and implemented, in partnership with the Major Industrial Accident Council of Canada and the Provincial Emergency Program, a community survey on local government's preparedness to respond to hazardous materials.
- Participation in a major marine exercise with industry and their Response Organization in Prince Rupert, whereby the application of shared command with the responsible party (the spiller) and the province, as well as government/industry response team integration, was successfully demonstrated.
- Chaired and supported the Emergency Technical and Training Committee to facilitate the operational requirements of Regional Environmental Emergency Response Officers.
- Designed and implemented a BC Oil Spill Workforce home page on the Internet, as the provincial contribution to this joint federal, provincial and industry endeavour.
- Initiated the British Columbia-Canada Decision Guidelines for In-situ Oil Burning during a major marine oil spill.
- Participated with the Coordination Committee of the States/BC Oil Spill Task Force to prepare a new, five-year (1999-2004) Strategic Plan and Annual Work Plan, and with the Task Force's work groups on vessel routing and other spill-prevention initiatives.

Ministry Business

- Redrafted the Memorandum of Understanding on Environmental Interactions Between Canada and British Columbia, based on established incident management protocols for multi-jurisdiction harmonization, and provided it to the federal government for consideration.
- Provided executive correspondence on federal government discussions on changes to the role of Canada's Marine Oil Spill Response Organizations.
- Established the concept of overhead Environmental Emergency Incident Management Teams to manage a major marine oil spill or hazardous-material incident.

- Obtained industry, government and non-governmental organization approval of two protocols developed under the auspices of the States/BC Oil Spill Task Force for the management of oiled birds and oiled mammals.
- Supported the Coastal Inventory Program of the Land-Use Coordination Office through field support for the Vancouver Island component of video-imaging.
- Facilitated the fund acquisition for ensuring operational readiness of command-post trailers for flood preparedness.

Habitat Branch

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The Habitat Branch, formerly the Resource Stewardship Branch, advocates the diversity of habitats and ecosystems, promotes protection of habitats of rare and endangered species, advocates resource-management alternatives that favour ecological integrity, supports, enhances and shares an ecological knowledge base and promotes the understanding of ecological principles through communication and education.

1998/99 Accomplishments

- Staff participated in making changes in Forest Practices Code legislation and ensured that environmental standards were not reduced in the process.
- Staff participated in developing the Private Land Forest Practices Regulation pursuant to the *Forest Land Reserve Act*.

- Training continued for district and regional Habitat Protection staff by participating in joint regional and district delivery with the Ministry of Forests on Forest Practices Code changes. As a result of these joint training exercises, improved and consistent processes were developed to expedite input in the decision-making process under the code.
- Released the *Managing Identified Wildlife Strategy* in February 1999, jointly with Ministry of Forests.
- Released the *Landscape Unit Planning Guide* in March 1999, jointly with Ministry of Forests.
- Promoted habitat protection and stewardship in urban areas through a Community Greenways Outreach Program in partnership with other government agencies and non-governmental organizations. Greenways Outreach workshops were delivered in eight communities throughout the province.
- The branch continues to participate in developing the Streamside Protection Policy Directive, designation of sensitive streams and a framework for recovery plans.
- The branch participated in organizing a four-day conference on "Ecological restoration in British Columbia: Helping the Land Heal," a one-day workshop on Integrated Stormwater and Stream Corridor Management, development of a brochure entitled *Cooperative Greenway Land Development: A Case Study — The Haig-Brown Kingfisher Creek Watershed, Campbell River, BC*, and delivery of courses and displays on wildlife trees in the urban environment.
- Completed the *Treaty Policy Discussion Paper for Habitat Protection* to outline the priorities and concerns for habitat protection as guidance for treaty negotiators.
- Participated with the Ministry of Forests on internal forest policy review audits across the province.
- Participated directly in the forest health policy review and coordinated the ministry's regional input.
- The ministry's silviculture specialist, in cooperation with regional silviculture specialists, developed and tested a methodology to monitor the effectiveness of enhanced forestry practices in the Cariboo and in the East Kootenays.

- Participated in the Forest Practices Board audit of *Appropriateness of Government Enforcement: Infra-Structure and Process Audit*, addressing primarily the activities of the Conservation Officer Service in enforcement of the Forest Practices Code.
- Forest Practices Code policy puts great reliance on professional expertise. In response, the Association of British Columbia Professional Foresters developed workshops to guide members in carrying out their responsibilities. MELP participated in pilot workshops and provided comments to promote integrated management.
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The land-use planning unit ensures that ministry interests within the current scope of government policy and legislation are met through provincial strategic-planning processes, including land and resource-management plans (LRMPs), regional land-use plans, Protected-Areas Strategy (PAS) and other land-use initiatives.

1998/99

Accomplishments

- Land and Resource-Management Plans for Prince George, Dawson Creek and Fort St. James were completed and approved by cabinet early in 1999.
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Habitat Conservation Trust Fund

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Victoria, B.C. V8W 2H1
Phone: 1-800-387-9853

Mailing Address:

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1998/99 Expenditure Highlights

The Habitat Conservation Trust Fund spent just over \$5 million on about 120 projects aimed at protecting, restoring and enhancing fish and wildlife populations and habitats throughout British Columbia. Here are some examples of projects:

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*Environment
and Lands
Regions Division*



ENVIRONMENT AND LANDS REGIONS DIVISION

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Surrey, B.C. V3R 0R3
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Fax (604) 582-5380

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Phone (250) 371-6200
Fax (250) 828-4000

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- Regional staff have been working on a number of issues related to contaminated sites. Victoria and Esquimalt harbours were subdivided into waterlots, and the federal Ministry of Transport is working to identify the extent of contamination.
- Staff also continued to work with the Tsolum River Task Force to find ways to control acid mine drainage from the abandoned Mt. Washington mine.
- A water-quality assessment of Cowichan Bay, the estuary and Cowichan River is underway, supported by the Georgia Basin Environmental Initiative with funding secured from the Water Quality Branch and Environment Canada.
- As a result of a partnership with the Capital Regional District (CRD), the ministry installed an air-monitoring site and conducted an historical air-quality review of the CRD. The report identified that there were no concerns and that particulate concentrations were dropping. The CRD extended the partnership for an additional two years.
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- The minister has approved Cowichan Valley Regional District's liquid waste management plan for the south sector. The area encompasses Mill Bay, Shawnigan Lake and Cobble Hill.
- Steelhead populations in east-coast Vancouver Island streams continue to be severely depressed. The region developed the *Vancouver Island Steelhead Recovery Plan*, based on information gathered at a public workshop. Workshop participants included both federal and provincial agencies responsible for managing fish, representatives from various sportfishing organizations, commercial guides and tackle-shop owners. Highlights of the plan include development of a captive steelhead brood program, stricter sportfishing regulations and increased enforcement and monitoring of steelhead.
- The Urban Salmon Habitat Program funded 27 Vancouver Island Stewardship groups.
- Successful reproduction of Atlantic salmon was confirmed in the Tsitika River on Vancouver Island. The fish were first identified while a snorkel survey team was conducting an annual steelhead census on the river. Later, regional fisheries staff sampled a number of fish and completed DNA testing to confirm samples were Atlantic salmon.
- Recovery efforts for the endangered Vancouver Island marmot included the capture and transport of an additional four animals to the Toronto Zoo's captive colony. Four animals were also sent to the Calgary Zoo to establish a second captive population. Numbers in the wild continued to decline to fewer than 100.
- Inventory and research projects funded by Forest Renewal BC and the Habitat Conservation Trust Fund increased the understanding of the distribution, relative abundance and habitat requirements for some rather obscure species, such as the Vancouver Island water shrew and the sharptailed snake.
- Work was also completed on a number of projects (cougar ecology, elk inventory techniques, goat habitat mapping, marten/ermine inventory and white-tailed ptarmigan), while studies on montane ecosystems, marbled murrelets, northern goshawk, deer winter-range assessments and grizzly bears continued. The information from these projects is required to meet demands associated with land-use planning processes and Forest Practices Code implementation.

- Wildlife staff provided input on habitat capability, suitability and management strategies for a number of species found within the Central Coast Land and Resource Management Plan and continue to support completion of the Vancouver Island Land-Use Plan. Staff were also involved in First Nations consultation requirements and support to treaty tables.
- Habitat staff assigned to the Vancouver Island Highway Project (VIHP) provided comments and approvals for the evolving design and construction work on the highway project. Habitat mitigation works are under way in cooperation with the federal Department of Fisheries and Oceans and VIHP where impacts could not be avoided.
- Forestry habitat staff continued to provide input into evolution and implementation of the Forest Practices Code. In addition, monitoring continued for Code compliance in conjunction with Conservation Officer Service staff through evaluation of riparian management area and road-related, stream-protection issues, and application of biodiversity principles at the stand level through monitoring of wildlife tree patches in Silviculture Prescriptions.
- Urban habitat staff continue to work in conjunction with other ministries and local governments to protect water quality, fish and wildlife habitat in the urban environment. More partnership agreements are under way to provide more efficient and effective delivery of habitat protection.
- Conservation officers received 2,733 complaints from the public regarding wildlife issues, of which 1,050 involved black bears and 755 involved cougars. A total of 765 enforcement actions (warnings, tickets and formal prosecutions) resulted from investigations undertaken by officers. Conservation officers conducting field activities made contact with 11,228 members of the public.
- Conservation officers participated in 45 public meetings, completed over 65 media interviews on a variety of topics including bear/cougar safety, fishing/hunting regulations and environmental-protection issues.
- A bear-awareness, public-education package was developed within the region for delivery in partnership with community groups.
- Conservation officers participated in compliance-monitoring activities related to the Forest Practices Code, dryland sort operations, Ozone Depleting Substances Regulations related to motor vehicle air-conditioning service centres and the Return of Used Lubricating Oil Regulation. Emphasis was also placed on compliance and enforcement activities regarding the Vancouver Island Steelhead Recovery initiative.

- The Water Management Program handled 50 water-licence applications over the fiscal period, a 10% increase over the previous year. Approximately 75 new water licences were issued and 35 licences amended.
- The ministry was notified of approximately 300 changes in and about streams, a number similar to the previous year; about 50 of these were issued approvals under Section 9 of the *Water Act*.
- The program continued to update and complete water-allocation plans. Over 25 water-allocation plans have been completed to date, with an additional five plans underway. Most water allocation in the region is directed by these plans, which are unique in the province.
- The program continued to address activities such as dam inspections, water use and flooding concerns/complaints, providing flood-proofing expertise to subdivision-approving authorities and technical expertise to watershed restoration projects. The program continued to participate in hydrological monitoring and responded to a number of flooding events over the winter of 1998/99.
- Forest Renewal BC (FRBC) activities were coordinated and delivered through FRBC staff. Several million dollars worth of projects were completed, focusing on restoring watersheds, collecting new inventories (water, fish, wildlife and habitat) and enhancing forestry with partners such as First Nations, the Ministry of Forests and forest licensees.
- The Planning and Assessment program handled over 700 development referrals, all generating a response from the region. Most referrals are from other agencies such as the Ministry of Transportation and Highways, the Ministry of Energy and Mines and a number of local governments.
- Planning and Assessment initiated a new process to handle development referrals focused on establishing more efficient relationships with referring agencies, developing environmental protection Memoranda of Understanding with local governments and developing/implementing guidelines and Best Management Practices.
- Planning and Assessment continues to coordinate the following planning activities: Cowichan Estuary Environmental Management Plan, Central Coast Land and Coastal Resource Management Plans, Millard Piercy, Millstream and Durrell Creek Watershed Management Plans, Campbell River and Courtenay River Estuary Management Plans and land-management-planning activities to support the BC Assets and Land Corporation.

- The Central Coast Land and Coastal Resource Management Plan continues with the planning process and technical support leadership from Planning and Assessment staff. The following was completed: comprehensive data set, strategy and objective statements for most resources and continued multi-stakeholder-focused negotiations.
- GIS support for all planning initiatives is led by the Planning and Assessment GIS section. In addition, the GIS section coordinates and provides corporate GIS support for all ministries involved in the Central Coast LCRMP.

Lower Mainland Region

- The Lower Mainland Region continued to adjust to steady demands on staff resources and increased pressure from population growth and development. The region achieved results through organizational changes, improved efficiency, adjustment of priorities, and the development of cooperative working relationships with other agencies and groups.
- The Maple Ridge District office was closed and the staff relocated to the regional office in Surrey, resulting in significant space cost savings. In spite of this change, the level of staff involvement in the Maple Ridge area remains unchanged.
- Although Forest Renewal BC funding has since decreased, significant progress was made in watershed restoration for fish-habitat-enhancement projects. For example, there are currently 22 such projects ongoing in the Chilliwack River Valley. There are also water-quality-monitoring projects continuing in 10 watersheds through FRBC's Operational Inventory Program.
- The region was a major contributor to the provincial Environmental Assessment Project Review process for projects that included the Garibaldi at Squamish Ski Resort, Westcoast Transmission LNG storage on Howe Sound and groundwater well installation in Squamish and Chilliwack.
- Staff contributed to growth management planning and implementation for both the Greater Vancouver and Fraser Valley Regional Districts.

- The ministry continues to be a key funding partner for both the Fraser River Estuary Management and Burrard Inlet Environmental Action programs. These partnerships are with the Greater Vancouver Regional District, federal government, Vancouver Port Authority, North Fraser Port Authority and Fraser River Port Authority.
- Staff contributed significant technical input into a number of treaty negotiations with First Nations in the Lower Mainland Region.
- The region participated with local municipalities in 11 pilot projects that test streamside protection provisions. The results will be applied to the development of the Streamside Directive Policy of the *Fish Protection Act*.
- Planning and delivery of a storm-water-management workshop in Sechelt attracted 200 participants from industry, local government, First Nations and the public.
- A pilot project was undertaken to test the draft Ditch Maintenance Guidelines, which will help to provide a proactive process for maintaining agricultural drainage ditches while protecting fish habitat.
- Regional Fish, Wildlife and Habitat Protection staff continued to work on improved delivery of the Forest Practices Code and protection of forest resources. To that end, a local area agreement was developed to rationalize fish-stream identification that is consistent with the Code, and Resource Management Plans were implemented in 18 Special Resource Management Zones under the Spotted Owl Management Plan to ensure long-term protection of the species.
- Regional staff and BC Fisheries continued to work on fertilization of the Big Silver River using phosphorus fertilizer to develop a blue-ribbon, Lower Mainland stream fishery.
- A major new fishery for cutthroat trout and kokanee in Jones Lake was established, following several years of fertilization.
- Staff continue to provide significant contributions to BC Hydro Water-Use Planning processes. The Water Use Plan for the Stave River is near completion, guaranteeing greater flows for fish in the anadromous section of the Stave River; work is currently under way on the Cheakamus plan, which should re-establish steelhead runs to this popular fishing river.

- Lower Mainland staff reviewed, monitored and, with local government, jointly implemented 14 Flood-Protection Assistance Projects (FPAP) worth \$1.5 million. These projects will provide significant flood-protection benefits for several Lower Mainland communities.
- The ministry provided technical direction for Year One of the Fraser River Gravel Reach Flood-Control Study, including surveys, mapping of channel changes and hydraulic model selection. The study is being completed jointly with the District of Chilliwack and other partners to investigate and mitigate concerns with the Fraser River dikes.
- The ministry-led Vedder River Management Committee coordinated a major removal of gravel and sediment from the Vedder River to maintain floodway capacity and flood protection for Chilliwack and Abbotsford.
- The rapid pace of land development in the Lower Mainland continues, particularly in flood hazard areas. Ministry staff continued to work with over 30 local government jurisdictions to implement flood-management provisions through Official Community Plans, subdivision approvals, and floodproofing bylaws. Several major developments in hazard areas were given ministry approval, subject to construction of appropriate protection works, floodproofing and maintenance programs. Examples include Whistler Creekside, Oliver's Landing at Furry Creek and a major shopping centre in the Fraser River floodplain in Mission.
- Ministry staff participated in the joint committee to implement the Fraser Basin Council's Integrated Flood Hazard Management Strategy. This process is encouraging coordination and partnerships between the federal, provincial, Regional District, First Nations and municipal governments.
- The 1998/99 winter record heavy snowpack in the Fraser River watershed posed a significant flood threat for the Lower Fraser Valley. Environment staff worked closely with the Ministry of Transportation and Highways and the Provincial Emergency Program to prepare detailed flood-response plans and emergency-response mapping. The ministry also provided response-planning information to local governments and industry.
- Staff continue to lead and support clean water policies and the protection of community water supplies. This year the ministry provided critical technical review and co-approved forest development plans in 18 community watersheds. The Lower Mainland Region also continues to finalize three new Integrated Watershed Management Plans to add to the two plans already approved.

- Service delivery to applicants under the *Water Act* was improved through new and adaptive licensing and approval procedures. Water-licensing backlogs have been significantly reduced.
- Pollution Prevention staff worked extensively to address toxic metal contamination in the Britannia minesite area and resulting threats to water quality and fish. Following an extensive public process, the owner was issued a clean-up order, with permission for an effluent plant and a conditional permit to operate a landfill at the defunct mine pit basin that would serve to reduce pollutant generation and finance the clean-up.
- Staff were instrumental in the drafting of a plan to expand and improve the landfill gas-collection system at the City of Vancouver landfill, representing substantial progress towards beneficial re-use of landfill gas. The plan is currently under review by the province.
- Based on 1998 figures, there has been a significant reduction of solid waste in the Lower Mainland, indicating that the region would meet and perhaps exceed the goal of a 50% reduction by the year 2000.
- The local controversy over mushroom farming took a positive turn when the composting facilities of one of the region's largest producers, Money's Mushrooms, were upgraded, using the most current technology available. In helping to bring about this improvement, ministry staff worked closely with both mushroom producers and the communities affected to resolve both residential and industrial concerns.
- Pollution prevention staff were able to effectively implement the province's High-Risk Orphan Contaminated Site process, which saw the remediation of a seriously contaminated site in Chilliwack.
- Several branches of the ministry worked with Environment Canada to implement a joint work plan to address non-point source water pollution from agricultural and urban land uses in the Elk Creek Watershed and other areas under the Georgia Basin Ecosystem Initiative.
- Conservation officers were called on to deal with a total of 3,020 problem wildlife calls. These calls concerned 2,322 black bears, 6 grizzly bears, 170 cougars, 8 wolves and 514 coyotes.

- A total of 1,382 non-compliance issues were investigated, resulting in 1,064 enforcement actions (warnings, tickets and formal prosecutions) involving all the ministry's key legislation. These included the following:
 - Conservation officers worked jointly with the Special Investigations Unit on a 20-month undercover operation, which resulted in a conviction against a man who was prosecuted under the provincial *Wildlife Act* for trafficking in bear parts and fined \$6,000.
 - Conservation officers assisted in the successful prosecution of a businessman responsible for a severe diesel spill in the Fraser River that resulted in a \$90,000 fine.
 - Halverson Trucking was fined \$20,000 under the federal *Fisberies Act* for depositing tailings from a granite-cutting company into fish habitat.
 - Two companies were fined \$16,000 under the *Waste Management Act* for the deposit of business waste.
 - Richie-Smith Farms in Chilliwack was fined \$4,000 and required to make an additional \$4,000 contribution to the Habitat Conservation Trust Fund, based on a conviction under the *Waste Management Act*.
 - Conservation officers assisted in prosecutions of several paint dealers under the Paint Stewardship Program.
- Conservation officers in the Squamish District conducted a monitoring program on commercial backcountry recreation in the Sea-to-Sky corridor, concentrating primarily on the Whistler/Pemberton area. The program is intended to educate and reduce conflicts among backcountry users.
- The Chilliwack Rod and Gun Club and the Hope Rod and Gun Club purchased over \$3,000 worth of decoy equipment to enhance hunting-enforcement efforts by the region's conservation officers.

Southern Interior Region

- New effluent treatment systems went into operation at the Brenda Mine, northwest of Peachland and the Homestake Nickel Plate mine, west of Penticton. At the former, molybdenum in the effluent is reduced by 99%, making it environmentally safe to discharge. At the latter, a biological treatment system reduces a potent mixture of organic and toxic components to acceptable levels, and the treated discharge is now compatible with all previous uses for the creek water.

- Riverside Forest Products completed its Pollution Prevention Planning process. The company developed a systematic method of prioritizing environmental concerns and combining these with operational improvements where possible.
- The Summerland Advanced Wastewater Treatment Plant opened as the final implementation stage of the Summerland Liquid Waste Management Plan.
- A small-scale biological nutrient removal treatment plant went into operation in the District of Lake Country, under the District's Liquid Waste Management Plan.
- The Vernon Liquid Waste Management Plan was completed, targeting long-range benefits from the use of reclaimed water in a regional distribution system.
- An air quality study began for Merritt, which will help the ministry assess air-pollution sources in the area.
- Major water quality studies were carried out, which will benefit the Shuswap, Okanagan, Osoyoos and Mara Lake systems.
- Under the Okanagan Lake Action Plan, research was carried out to support the establishment of a commercial fishery for *mysis relicta*, a non-indigenous freshwater shrimp that is threatening kokanee stocks in the lake.
- A water-use planning process began for the Bridge-Seaton system in cooperation with BC Hydro.
- Major research continued to support the recovery of vulnerable steelhead and sturgeon in the Thompson River system.
- Planning began for a new small lakes management centre.
- In conjunction with habitat staff, the Wildlife Branch implemented the first stages of the Cascade Grizzly Bear Recovery Program.
- A number of projects funded by Forest Renewal BC, Habitat Conservation Trust Fund and First Nations Treaty were carried out, providing support to goat surveys in the Lillooet area, sharp-tailed grouse, Marbled Range sheep, Caribou telemetry work in the North Thompson, and a mule deer habitat assessment in the Boundary region.
- Under a broad partnership to support biodiversity in the South Okanagan, a wildlife habitat atlas was completed focusing on species at risk. The atlas is the result of many years of work in habitat inventory and ecosystem mapping, and will be an important tool for wildlife conservation in this area.

- Other wildlife projects included the initiation of a mule deer recovery strategy for the Okanagan region, Rocky Mountain elk recovery plans began for the North Adams and Princeton areas, and an ongoing study of mountain goats in the Cayoosh Range for the Cayoosh/Melvin Creek Environmental Assessment Review.
- Urban habitat staff reviewed numerous development referrals from local governments and other agencies and worked closely with Ministry of Transportation and Highways on the widening projects for the Coquihalla Connector and Trans-Canada Highway.
- District habitat staff provided key support to Okanagan-Shuswap and Lillooet Land Resource Management Plan (LRMP) negotiations and towards Kamloops LRMP implementation.
- Temperature-sensitivity issues within the Nicola River drainage were studied in cooperation with fisheries staff and the Department of Fisheries and Oceans.
- Planning and Assessment and Aboriginal Relations staff provided technical and negotiating support to Westbank, In-SHUCK-ch/N'Quatqua and Ktunaxa Kinbasket treaty negotiations.
- Staff coordinated input from all ministry programs for the Environmental Assessments of the Cayoosh/Melvin Creek ski development proposal and the BC Gas, Southern Gas Crossing project.
- Planning support was provided to the BC Assets and Land Corporation through a study of recreational lakes on the Bonaparte Plateau.
- A regional watershed restoration plan was produced in cooperation with Fisheries and Oceans Canada, Forest Renewal BC, the Ministry of Forests and forest licensees. The plan will provide agencies with a framework for assessing the relative priority of projects and coordinating funding sources.
- Thirty-one flood protection projects were completed and over \$2.3 million in flood-mitigation works constructed.
- In its regulatory role, the Water Management section issued 128 water licences, 390 water-licence amendments, 225 approvals for works in and about streams and 221 floodplain covenants. It responded to 441 interagency referrals.

- Conservation officers contacted 26,224 resource users during checks and investigations, generating 1,448 case files that resulted in 678 charges and 810 warnings being issued for a broad range of violations of ministry legislation.
- The dry summer forced many bears into conflict situations in the arid portions of the region. The Conservation Officer Service received more than 3,100 public complaints, resulting in the destruction of 464 bears. Legislation to curb people from having unnatural food attractants on their property was passed in the spring 1999 and will allow us to reduce conflicts in the future.
- Two individuals apprehended after poaching two bull moose near Lumby received 30-day jail sentences rather than a monetary fine, as a strong deterrent to others considering hunting during the closed seasons.
- During the hot and dry summer, the Ministry of Forests called upon conservation officers to enforce fire bans and emergency evacuations. Charges were laid in 23 cases to help reduce the risk of campfire-initiated fires during extreme hazards.

Kootenay Region

- The ministry partnered with south-eastern British Columbia coal mines to carry out studies to determine the impact of selenium on aquatic life in the Elk River and tributaries. Selenium appears to be released during surface coal-mining operations. More recent work carried out under the partnership brought in researchers from Simon Fraser University to determine the impacts of selenium on early life stages of cutthroat trout. Further studies are ongoing to determine the mechanisms of selenium release and the potential for impact on other species. Any necessary management decisions will be made based on the results of the studies.
- The minister approved a portion of the Regional District of East Kootenay Solid Waste Management Plan, authorizing the construction of a new central sanitary landfill. As a result, the Cranbrook and Kimberley landfill sites are being closed. In addition, regional staff facilitated a public consultation process in the Elk Valley portion of the regional district. This resulted in a recommendation supported by the public and municipalities to transport municipal refuse to a site in Alberta. In both instances, small- to medium-sized landfills are being replaced by state-of-the-art transfer and recycling facilities.

- The new Kivcet lead smelter at Cominco's Trail operations reached 90% of design capacity during the reporting period. Reaching this level of operation initiated a year-long environmental evaluation by Cominco to determine the reductions in pollutants achieved by operation of the new smelter. Initial results suggest reductions in emissions of sulphur dioxide and metals have met or exceeded expectations.
- There was a significant increase in the number of bear/human encounters involving black bears in this fiscal year. As part of an Adaptive Service Delivery initiative, the Conservation Officer Service and other involved programs have expanded the bear/human conflict education program from the City of Revelstoke to other communities in the region. Agreements were reached with the BC Conservation Foundation just before the end of the fiscal year. The program will be expanded to several communities next year, with a goal of provincial implementation in the near future.
- In conjunction with the Special Investigations Unit and Parks Canada, Golden conservation officers concluded an 18-month investigation into the activities of a guide-outfitter, resulting in more than 200 charges against the outfitter as well as several employees and a number of American hunters. Fines from the original trial were the highest ever levied in a single wildlife case in British Columbia. Administrative action is also being taken against this outfitter, as well as three others in the region.
- In 1998-99 the Conservation Officer Service issued 421 warnings and laid 517 charges. Total fines amounted to \$129,269.
- Kootenay Lake fertilization continued for the fifth year with financial support from BC Hydro. The success of the program was shown by increased numbers of Gerrard rainbow trout spawners and over a million kokanee spawners in the ministry's Meadow Creek spawning channel.
- In conjunction with the Columbia Basin Fish and Wildlife Compensation Program and BC Hydro, planning continued for fertilization of the Arrow Lakes. Declining kokanee stocks warrant the introduction of fertilizer to the reservoir in the coming year. Biologists are hopeful the success of the experimental fertilization program in Kootenay Lake will be repeated.
- Fisheries staff worked cooperatively with a number of U.S. fish and wildlife agencies as part of an ongoing recovery program for the endangered Kootenay River white sturgeon.

- Wildlife staff continued habitat enhancement projects in the East Kootenay to reverse forest in-growth in the East Kootenay Trench and increase ungulate population recovery.
- In conjunction with the Columbia Basin Fish and Wildlife Compensation Program, the Wildlife Branch partnered in a number of projects that related to sustaining red-listed wildlife species, as well as enhancement of habitat for game species.
- Involvement in the Grizzly Bear Conservation Strategy was also a key part of Wildlife Branch activities.
- Habitat Protection staff were involved in a number of key government initiatives, including the ongoing implementation strategy for the Kootenay Boundary Land Use Plan. Additionally, work continued on innovative forestry practices agreements with Ministry of Forests staff. Ongoing involvement in operational-level forest development plans was a key component of the duties of forest ecosystem specialists based in Ministry of Forests offices.
- Water Management staff were again an integral part of the 1998 spring freshet/flood-mitigation response by government agencies. Staff helped to implement the Flood Protection Assistance Program. Eight projects with a total value of approximately \$300,000 were completed in 1998. This will result in a better return on investment for the Forest Renewal BC program.
- Water Management staff were also involved in three significant investigations in response to environmental degradation caused by third parties.
- The region produced a Resource Management Plan for Forest Renewal BC that prioritized the expenditure of \$4.5 million for projects focused primarily on watershed restoration and resource inventory. This was the first year of resource-management planning with a focus on inventory and watershed priorities.

Cariboo Region

- The region continued to work with the Cariboo Regional District to amend their Solid Waste Management Plan. The plan saw the closure of several landfills, which were replaced by transfer stations.

- The shutdown of a plywood plant beehive burner in Quesnel was monitored by regional staff. As well, staff worked in cooperation with the thermo-mechanical pulpmill in Quesnel to reduce waste going into the landfill by successfully implementing a farmland sludge application benefiting both soil and harvested crops.
- A five-year, water-quality study of the Bridge Creek Basin, funded by Environment Canada under the Fraser River Action Plan, was completed in 1998. Eleven reports were produced, ranging from an initial summary of environmental data and characterization of the watershed to a comprehensive assessment of the water quality of Horse Lake and Bridge Creek at 100 Mile House. As Bridge Creek supplies water for the District of 100 Mile House, recommendations were made for future environmental assessment and management within the basin. The study facilitated a large volunteer stewardship effort by local residents. A summary of the entire study is available.
- Habitat protection activities included 19,000 hectares of Forest Operational Plan assessments in the Chilcotin District and an average of 6,000 hectares in each of the other five districts, an ungulate winter-range management plan, input to the sub-regional and landscape unit planning for the Cariboo-Chilcotin Land-Use Plan and guidance documentation for the Forest Practices Code, including wildlife tree patches and stream crossings.
- Wildlife projects included ecosystem mapping inventories, development of a caribou strategy with the monitoring of 50 collared caribou, implementation of a moose regulatory and allocation strategy that includes a limited-entry hunt and assessments of the grizzly bear population on the mid-Coast in combination with the Grizzly Bear Conservation Strategy. Other activities included assessments of the local moose and deer population, administration of 59 guide-outfitter licences and quotas and initiation of the Identified Wildlife Management Strategy.
- In Fisheries, River Guardian projects for the Dean and Chilcotin Rivers entered their third year. Under this program, up to eight graduates from enforcement education programs are hired to assist conservation officers in patrolling and monitoring activities on five of the province's most highly used rivers during the fishing season.

- Other fisheries activities included inventories for 20% of the lakes and streams across the region, advice regarding fish habitat for in-stream and stream-adjacent work on private land, the administration of angling guides for over 100 licences and annual operating plans, participation in the five-year sturgeon research project on the Fraser River and completion of the steelhead radio-tagging and spawning assessment on the Chilcotin River.
- The Planning and Assessment Section completed the first of eight sub-regional plans, which was endorsed by the Regional Resource Board. The South Chilcotin Sub-Regional Plan set objectives and strategies to manage all forest resources.
- Implementation of the Cariboo-Chilcotin Land-Use Plan continued, with a high level of cooperation between government, industry and other stakeholders.
- Negotiations continued on consultation and fish and wildlife agreements with the Cariboo Tribal Council and the Tsilhqot'in National Government.
- The 1998 Caribou Strategy Update Report was completed and accepted by the Regional Resource Board.
- Initial lakeshore development plans were completed for eight lakes.
- In addition to general enforcement duties, conservation officers received 1,093 wildlife complaints, including 531 bear complaints, 162 cougar complaints and 57 wolf complaints, as well as a variety of others. Two-hundred-seventy-three animals were destroyed and five relocated. A total of 176 livestock were confirmed killed by predators.
- Enforcement activities also included 860 case files opened, 504 charges laid and 561 warnings issued. One investigation involving the illegal trafficking of wildlife and fish spanned 18 months and was completed with the aid of the Special Investigations Unit. Two major short-term investigations were assisted by the Special Investigations Unit. Additionally, 138 Forest Practices inspections were carried out.
- Information Systems activities in the region included 5,000 maps produced for over 101 projects and response to 10,000 service requests. There were 12,000 hits per month to the Cariboo MELP web page. In addition, this section provided support to sub-regional plans (Horsefly, 100 Mile House, Chilcotin and Williams Lake forest districts), the caribou research project, regional mule deer winter-range assessments, the regional disaster recovery systems plan and numerous other projects.

Skeena Region

- Skeena Region conservation officers initiated a total of 893 investigations during 1998/99, resulting in 193 charges and 281 warnings being issued. In the course of conservation officer field work, 12,628 individual persons were contacted and 1,627 problem wildlife occurrences were handled within the region.
- A joint enforcement project with BC Parks resulted in 15 *Wildlife Act* and *Park Act* charges for offences in North Tweedsmuir Park.
- Several investigations were initiated under the Open Burning Smoke Control Regulation, which resulted in charges against three major companies.
- The Thornhill landfill electric fence project was completed, with 21 bears removed from the site and no complaints from area residents regarding displaced bears.
- A proactive campaign was initiated to reduce bear conflicts in Kitimat. Businesses which generate attractants were advised of their obligations pursuant to the *Waste Management Act*. Most businesses obtained bear-proof refuse dumpsters as a result of this campaign.
- A considerable amount of time was spent addressing night moose-hunting complaints. Several First Nations people were charged, presently testing the diversion process as an alternative to prosecution.
- During the year, the Water Program was involved in a provincially declared spring flood for Terrace and area. A total of 90 water-licence applications were adjudicated, effectively eliminating the regional backlog. Eleven dam inspections and six dike inspections were carried out; 161 Notifications and 101 Approvals were adjudicated. Audits of watershed restoration projects for approval compliance were undertaken on the Queen Charlotte Islands and in the Smithers area.
- Nisga'a Treaty implementation issues have been coordinated through the Skeena Aboriginal Relations section. In addition, this section continues to represent the region at regional caucus, treaty table and bilateral meetings and monitored the Wet'suwet'en Bilateral Lands and Resources Referral Process service contract, funded under the Common Land Inventory Base.
- Fisheries staff successfully completed the third season of the River Guardian Program on the classified waters of the Skeena watershed to quantify angler use, angler success and quality of experience.

- Twenty-five small lakes were restocked. Indicator/index stream assessments were undertaken to determine Skeena steelhead stock strength. Several fish-passage restoration projects were completed on Skeena tributaries, in cooperation with the Ministry of Transportation and Highways. Steelhead stock assessments were completed on the Nass River tributaries in support of the Nisga'a Treaty implementation.
- Wildlife staff partnered with a diverse group of forest licensees, First Nations, outfitters and residents to assess wildlife populations, current harvest levels and future needs. Inventory projects were carried out for marbled murrelet, goshawk, northern bald eagle, Kermode bear, caribou, moose and mountain goat, as well as studies of population movements and habitat use. The third year of caribou transplants back to their historic Telkwa range was completed.
- The Wildlife Section also provided a member to the Grizzly Bear Scientific Advisory Committee, which advises the minister on issues around scientific management of grizzly bear and their habitat, and also organized and participated in the Nisga'a Wildlife Committee, and the Northern Wildlife Harvest Committee. The latter was designed to provide First Nations with direct input to establishing regulations for hunting seasons in the northern part of the region.
- Habitat staff participated in planning in all forest districts to ensure environmental interests were incorporated. They also restored fisheries habitat in many logged watersheds and identified priority watersheds for restoration. Several key environmental assessments were reviewed.
- The Watershed Restoration Program completed all the high-priority overview assessments, detailed habitat assessments and prescriptions for the Skeena watershed. Restorative, rehabilitative and mitigative projects were undertaken in 12 priority watersheds.
- Regional Pollution Prevention staff participated in the public consultation around beehive burner phase-out for the three remaining Tier 1 burners in the region, which are located at Houston and Smithers. As part of this exercise, the region produced a comprehensive beehive burner background report, which was distributed to the public and posted on the air-quality web site.
- The ambient air-quality monitoring network was extensively expanded in the region with the addition of three continuous particulate monitors in Kitimat and two continuous particulate monitors and two sulfur dioxide monitors in the Port Edward area. All of these monitors were funded by industry.

- Work continued towards development of a pollution prevention plan for Alcan's aluminum smelter at Kitimat. This year saw the completion of the extensive Kitimat Works Site and Operational Review report, which documented the state of the environment in the Kitimat area and outlined 830 pollution-prevention opportunities and 18 information gaps that existed at the smelter site. These were further prioritized at a symposium with representatives of the Public Advisory Committee into 44 high-priority issues that needed to be addressed in the Pollution Prevention Plan.
- Pollution Prevention staff were seconded to other projects considered to be provincially significant. The regional Mine Development Review Officer was seconded to assist the Cariboo Region to assess the acid rock drainage potential at the Fish Lake property. In addition, the Pollution Prevention Officer who administers Alcan's aluminum smelter was seconded to the provincial aluminum-smelter-expansion task force, which had as its mandate the development of policies and guidelines to facilitate the expansion of the aluminum smelter industry in British Columbia.
- *Environmental Assessment Act* reviews continued to be a significant workload. Pollution Prevention staff gave a presentation to the U.S. Environmental Protection Administration and the State Department of Alaska on the Tulsequah Chief property, describing the Environmental Assessment process and the *Waste Management Act* permits that will be put in place to protect valuable salmon stocks in the Taku River. The Silvertip property and the Telkwa coal project were also proceeding through the environmental review process.

Omineca–Peace Region

- Fish and Wildlife staff completed several projects funded by other agencies. Work undertaken under the Muskwa–Kechika Management Plan included setting up a GIS data system, the first phase of the Wildlife Plan, enforcement funding and wildlife surveys.
- The clean-up of fuel drums left throughout the Muskwa–Kechika area resulted in the collection and removal of 260 fuel drums and an estimated recovery of 15,000 litres of hydrocarbon, which was delivered to the Husky oil refinery in Prince George. This project was delivered on schedule and 33% under budget. The ministry wishes to express its appreciation to the Husky Refinery and Northern Rockies Regional District for their assistance.

- Projects funded by the Habitat Conservation Trust Fund staff included wildlife burns, a butterfly and moth inventory, the Swan Lake fishway and survey, plains bison demographics, Charlie Lake wetland restoration, Dunlevey fence clean-up and Lockhurst Mountain clean-up.
- A number of treaty tables were active during this fiscal year, including the Kaska Dena, McLeod Lake (Treaty 8 adhesion), Lheidli T'enneh, Yekooche, Cheslatta, Tsay Keh Dene and Carrier Sekani. The ministry funded fish and wildlife inventories and studies in support of these negotiations.
- Ministry staff have been working with Ministry of Energy and Mines and the Oil and Gas Commission to resolve issues with First Nations trappers and the impact of the oil and gas industry.
- Habitat Protection staff participated in the completion of seven Land Resource Management Plans in the Prince George Region; six have received government approval, one is awaiting government approval and the Mackenzie LRMP is still in progress. Implementation has begun for the approved plans.
- Staff participated in the Forest-Sector Cost-Driver Initiative, along with staff of the Ministry of Forests and the forest industry, to reduce development costs while maintaining environmental standards. Initial efforts resulted in cost savings for licensees of between \$2 and \$5 per square metre. Additional savings will occur as work continues.
- Work began on the development of innovative forest practices agreements for the Vanderhoof and Robson Forest Districts. Both projects are looking at alternate forest-management strategies to benefit non-timber resources.
- Projects funded under the Forest Renewal BC program included:
 - \$4.5 million of fisheries inventory projects and \$1.75 million of watershed restoration projects.
 - An FRBC-funded grizzly bear project, which is of particular importance as it will help to establish grizzly bear population estimates for Management Unit 7-42 and the adjoining area in the Peace.
 - Management of Watershed Restoration Program projects on Martin Creek, Colt Creek and Bluegrave Creek.
 - Completion of a study indicating a moose density within a 19,000 km² area around Prince George, of 1.3 moose/sq. km. The estimated population of moose is 25,000. This indicates a much higher density than is typical for a moose population subject to predation and hunting. These numbers confirmed that the current annual hunter harvest is sustainable.

- Initiation in May 1998 of a study to determine grizzly bear habitat use in commercial forests just north of Prince George, by radio-collaring and monitoring the movements of 22 bears. In early observations, bears were found in forest areas classified as non-commercial brush 60% of the time. Final results will assist in better understanding and avoiding resource-development impacts on bears.
 - Completion of a survey of the Yellowhead caribou herd in February 1999 found the same number of caribou as in 1992 and 1993, suggesting that herd size is stable at about 600-700 animals.
-
- As part of the national Wood Bison Recovery program, 18 wood bison were transplanted into an 800-hectare fenced pasture northeast of Fort St. John in the Ettithun Lake area. An additional 20 bison will be transplanted into this same area in the year 2000.
 - Fish and Wildlife staff are key participants in the application of the McGregor Model Forest Association's sustainable forest-management model to Northwood's Tree Farm Licence Management and Working Plan. The result will be much more certainty in forecasted outcomes of the company's plans, including all *Forest Practices Code Act* requirements and environmental objectives.
 - Staff provided specialist fisheries expertise to the Nechako Watershed Council to support their development of a long-term management strategy for the Nechako River. The council will make its recommendations to the Nechako Environment Enhancement Fund.
 - The first phase of two, multi-year, radio-tagging studies for bull trout, a species of provincial concern, was successfully completed. These studies are aimed at answering important questions about the species to enable better management decisions.
 - Timing windows and measures were established for five of the eight forest districts. These clarify requirements for forest companies to work in and about streams.
 - The first Local Area Agreement (LAA) was completed for Finlay Forest Industries. These agreements simplify the process for stream classifications under the Forest Practices Code and, consequently, result in significant cost savings for forest companies and improved environmental results for fish. More LAAs are under development in the region.

- With the development of the Oil and Gas Commission (OGC) and BC Assets and Land, ministry staff previously in the oil and gas section were transferred to OGC and Lands staff were assigned to BCAL. The Pollution Prevention Program and the Oil and Gas Commission signed a memorandum of understanding for the permitting and inspection of drilling-related activities.
- There were 44 new applications received for water licences in the region, and 30 applications were processed during the year. The application backlog grew from 117 to 131. There were 41 amendments required and 24 completed, with the amendment backlog increasing from 26 to 43. Staff re-assignments have been made to reverse this trend.
- The TRC cedar sawmill beehive burner in McBride was eliminated.
- Air-quality management has focused around Prince George, where an Air Management Plan has been developed and approved, and Dawson Creek, where a new monitoring program has been designed around the Louisiana Pacific strand-board plant.
- Conservation officers dealt with 1,351 enforcement occurrence reports, resulting in 480 charges and 448 warnings. There were 18,849 individual contacts made with resource users and the public. One-hundred-fifty-eight media interviews were given and 188 meetings or talks were attended or given. These statistics are up in all categories over the previous year.
- Conservation officers received 2,983 problem wildlife complaints during the year; 209 black bears were destroyed and 12 were relocated, which is substantially more than in the previous year.
- As a result of a lengthy undercover operation in the Prince George area, 75 *Wildlife Act*, federal *Fisheries Act*, *Waste Management Act* and Criminal Code charges were laid against nine people. Large seizures of wildlife, wildlife meat, firearms, bear parts, butchering equipment and sockeye salmon were made. The trial is pending.
- Fines of \$9,100 and 240 days' jail time were levied against two Fort St. James men as a result of an investigation into the illegal killing of two elk, a moose and a whitetail deer south-east of Fort St. James. \$4,940 of the fine was directed towards the Rocky Mountain Elk Foundation.

- Two B.C. men were charged with numerous counts under the *Wildlife Act* related to the destruction of a family of grizzly bears (sow and three cubs of the year) east of Prince George. Fines totalling \$27,000 (convictions on four counts each) were levied against the two men. The fines were directed towards the Grizzly Bear Trust Fund.
- Northwood Pulp was charged under the *Waste Management Act* and federal *Fisheries Act* for depositing toxic effluent into the Fraser River at Prince George. The mill was convicted and fined \$25,000 (\$5,000 fine and \$20,000 directed to enhancing fishery values in MacMillan Creek).
- Finlay Forest Industries was fined \$25,000 for infractions under the *Waste Management Act* and the federal *Fisheries Act* as a result of an investigation into the discharge of toxic mill effluent into Williston Lake. Part of the fine was directed to the Habitat Conservation Fund for use by the Peace-Williston Fish and Wildlife Compensation Program.
- Following a 16-month investigation conducted jointly with the federal Department of Fisheries and Oceans, 13 charges were laid under the federal *Fisheries Act* against Royal Oak Mines in the spring of 1999 related to destruction of fish habitat and deposit of a deleterious substance (sediment) into fish-bearing waters (Kemess, South Kemess and Mill Creeks).

Environmental Assessment Section

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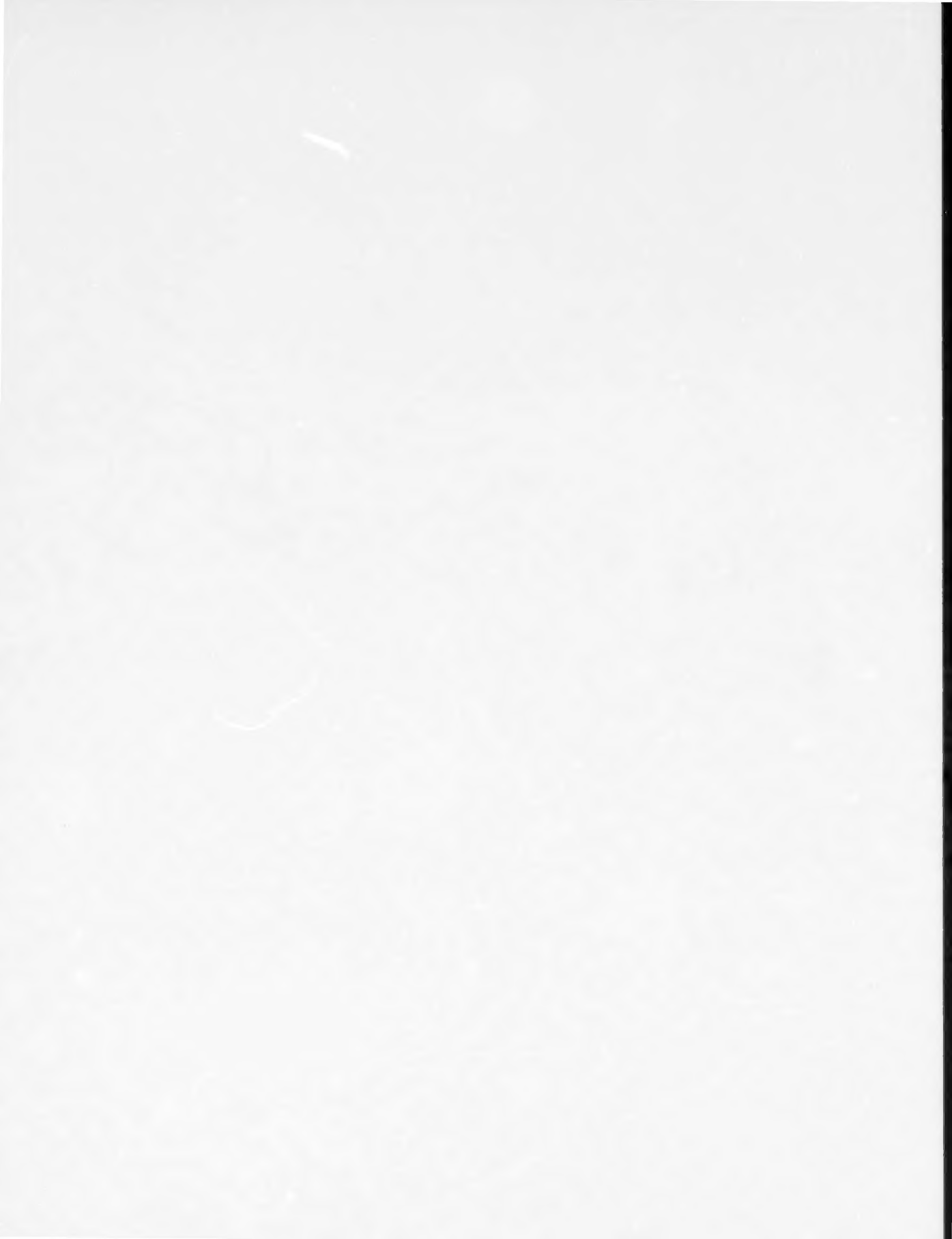
The Environmental Assessment Section contributes to the ministry's strategic objectives. This is done by ensuring that the environmental effects of projects, reviewed under the province's *Environmental Assessment Act* relevant to the ministry's mandate, are identified and addressed before a referral is made to the ministers for decision on the project.

The Environmental Assessment Section is responsible for ensuring that all ministry policies, and legislation regarding the protection and conservation of land, air, water, fish populations and habitats, biodiversity, sustainability and aboriginal rights, are considered and incorporated during project analysis in accordance with the *Environmental Assessment Act*. This information is coordinated by the Environmental Assessment Section involving staff in the regions and headquarters. The section also works closely with the Environmental Assessment Office in Victoria.

The section is also responsible for managing the preparation of ministry recommendations on all projects subject to the *Environmental Assessment Act*, and represents the ministry on the intergovernmental project committees formed to review each project.

1998/99
Accomplishments

- Environmental Assessment staff represented the ministry in the review of 18 projects and participated in the review of current thresholds for mining, oil and gas, power, groundwater projects, municipal solid waste, plywood and veneer plants. The result was agreement on a recommendation to ministers to change the thresholds in an amendment to the Reviewable Projects Regulation.
- The ministry continued the development of environmental assessment guidelines to guide the ministry's data and information requirements as part of the environmental assessment process. Draft groundwater guidelines were used in the evaluation of two groundwater projects.
- The Environmental Assessment Section led the involvement of the ministry in the province's aluminum smelter initiative, preparing draft Waste Discharge Guidelines for New Aluminum Smelters, conducting stakeholder workshops and participating with other agencies in developing data collection and site protocols to ensure the timely and effective review of potential aluminum smelter proposals under the *Environmental Assessment Act*.
- Staff participated with other government, industry and university representatives in the Technical and Research Committee on Reclamation, which, among other activities, organized the 22nd Annual Reclamation Symposium in Penticton.



Parks Division



BC PARKS

Mandate and Mission

Parks Division (BC Parks) is responsible for the designation, management and conservation of a system of ecological reserves, provincial parks, and recreation areas¹ located throughout the province. These designated protected areas contain many of the best representative elements and special features of British Columbia's diverse natural and cultural heritage. As a public trust, BC Parks' mission is to protect representative and special natural places within the province's Protected Area System² for world-class conservation, outdoor recreation, education and scientific study.

BC Parks' authority is drawn from three pieces of legislation, the *Park Act*, *Ecological Reserve Act* and the *Environment and Land Use Act* and their associated orders, regulations, policies and agreements. BC Parks has also been assigned responsibility for regulations related to commercial river rafting (the *Commercial River Rafting Safety Act*) and regional parks (the *Parks Regional Act*). In addition, BC Parks provides the lead in coordinating government's role in the B.C. and Canadian Heritage Rivers Systems.

BC Parks administers, on behalf of the Premier's Youth Options BC Initiative, the Environment Youth Team (E-Team), a program which funds diverse environment and outdoor recreation projects that provide employment opportunities for British Columbia's youth. The E-Team's annual program is submitted and approved through *Youth Options BC*.

¹ Provincial parks and recreation areas administered under the *Park Act* and protected areas (*Environment and Land Use Act*) are referred to collectively as protected areas.

² The Protected-Areas System is an integrated network of provincial parks, recreation areas, ecological reserves, and protected areas located throughout British Columbia. A provincial government strategy is in place to meet B.C.'s commitment to develop and expand the protected-areas system to protect 12% of the province by the year 2000. The goals of the strategy are to protect viable, representative examples of natural diversity in the province, and special natural, recreational and cultural heritage features.

Organization and Management

BC Parks consists of a Victoria headquarters with three branch directors and one operations director, and 11 districts with a number of satellite offices.

- **Parks and Ecological Reserves Planning Branch** is responsible for representing BC Parks in the government's protected-areas planning processes, protected-areas acquisition and designation, developing park and ecological reserve system policies, management planning, coordination and policies and leading strategic initiatives for the agency.
- **Parks and Ecological Reserves Management Branch** is responsible for policy and program direction for the management and protection of the established provincial parks and ecological reserves, including conservation, outdoor recreation and education/interpretation. In addition, the branch manages provincial recreational boating and the commercial river-rafting program.
- **Parks Division Services Branch** is responsible for preparing the Parks Division's estimates, providing finance, administration, human resources and information systems support to the division under the direction of the Ministry's Corporate Services Division, managing the Environment Youth Team Program, business planning, research, effectiveness reporting and issues management.
- **District Operations.** The 11 park districts are responsible for planning and undertaking the effective protection, use and operation of all designated provincial parks, recreation areas, protected areas, and ecological reserves through staff and contractors. Districts implement all BC Parks programs, with the exception of protected-area system planning. Districts also assume a leadership role in coordinating these programs with other government initiatives in the field.

Budget Overview

BC Parks' basic conservation responsibilities and its management of recreation use are funded by an annual budget appropriation. BC Parks' expenditures in 1998/99 were \$30.82³ million, a 6.2% decrease compared to 1997/98 (\$32.87 million) and a 6.6% decrease compared to 1996/97 (\$33 million).

In 1998/99, user fees collected and retained by park facility operators to fund park operations under operations permits were \$9.2 million compared with \$8.3 million in 1997/98 and \$8.6 million in 1996/97.

In addition, BC Parks received funding from approved project applications to Forest Renewal BC of \$5.64 million. FRBC funding, under its "Recreation Program," is assessed on a yearly basis and must be spent in accordance with FRBC objectives and priorities.

Human Resources Overview

In 1998/99, BC Parks operated with a total of 371 FTEs (full-time equivalents; 373 FTEs in 1997/98) of which 353 were utilized. With this utilization level, BC Parks employed 299 (61%) permanent employees, 152 (31%) seasonal and 38 (8%) auxiliary employees.

Since 1990, private-sector contractors have supplemented BC Parks staff to operate camping and day-use activities, as noted above. These park facility operators retain the fees paid by park campers, and also receive additional negotiated payments from BC Parks to offset total operating costs. Contractors also deliver in-park interpretive services, such as nature talks and tours in specified parks.

³ 1998/99 expenditures do not include \$377,000 dedicated to Cypress Bowl Recreation Area contractual obligations, \$1.54 million dedicated to the Campgrounds BC initiative or a one-time addition of \$0.6 million for B.C.'s Parks Legacy Project and to reinstate services in some parks. 1997/98 expenditures do not include \$2 million dedicated to Cypress Bowl Recreation Area contractual obligations.

Business Planning

BC Parks initiated a new business-planning process in mid-1997 to clearly establish agency-wide priorities and to link these priorities to both operational decision-making and budget allocation. The *BC Parks' 1998-2001 Business Plan* reflects government priorities and is directly linked to goals and priorities of the Ministry of Environment, Lands and Parks.

The Business Plan provides direction for a three-year term for managing and protecting the integrity of the protected-area system as it continues to expand. BC Parks is currently awaiting government's response to the BC's Parks Legacy Panel recommendations. The Panel was initiated by government to provide ideas on the broad, future vision for managing the expanding protected-areas system. After a year and a half of public consultation, the nine-member panel released its final report on February 23, 1999, with 101 recommendations in five broad theme areas:

- A vision for the protected-areas system.
- Planning for protected areas.
- Managing protected-areas values and uses.
- Improving public and community involvement.
- Expanding and diversifying resources for the long-term management of the system.

Implementing government's decisions and direction on these recommendations will be a major challenge, and adjustments to BC Parks' current business plan will be made accordingly. In July, 1999, the government announced that new protected-areas legislation and a five-year BC Parks' business plan will launch the next stage of B.C.'s protected-areas strategy. Consequently, the 1998-2001 business-planning period is one in which interim solutions are sought to deal with challenges facing BC Parks in day-to-day operations. Immediate challenges include:

- Meeting the legislated requirement to designate a minimum of 10 million hectares of parkland by January 1, 2000 (Section 5(2)(b) *Park Act* 1995).
- Managing an expanded protected-areas system.
- Managing high levels of park use.

- Providing adequate protection of park values.
- Upgrading ageing and inadequate infrastructure.
- Providing adequate park-management planning.
- Maintaining service and program standards.
- Responding to information needs and requests and updating information support technology and systems.
- Providing training and career-growth opportunities for staff.

A key component of the business plan is a performance-management system that allows BC Parks to establish clear objectives, performance measures and targets, monitor progress and report on objective achievement and identify and implement effective management strategies. Measuring performance assists in ensuring the effective operation of the agency and facilitates accountability reporting to the government and public. Business-plan objectives outline the core operational delivery priorities of BC Parks for the next three years. Objectives and performance measures are not intended to capture all of BC Parks' mandate, but rather focus attention on what is critical to sustain the protected-areas system over the next three years.

BC Parks' Objectives and 1998/99 Accomplishments

The remainder of this report provides particulars on BC Parks' five key business objectives for 1998/99, including recent accomplishments and performance measures. These objectives, equal in priority, have been approved by BC Parks executive (Park Management Committee), districts and programs in Victoria. Recent accomplishments reflect the most critical achievements that BC Parks has made towards reaching priorities during the 1998/99 reporting period. Performance measures and targets that monitor the agency's success in meeting stated objectives are incorporated in the discussion of recent accomplishments.

Objective 1: Protect the known values that are under threat in the currently designated protected-areas system. Values include natural and cultural heritage, recreation use and appreciation. The core of BC Parks' "business" is to protect those values that resulted in protected-area designation.

Protecting Known Values

Recent Accomplishments

- The BC Parks Impact Assessment Process was finalized and implemented at the end of March 1999. The process ensures that the stewardship of British Columbia's system of protected areas is a key priority in all activities and practices that are conducted within these areas. The process includes three parts: Policy (states the objectives of the policy and provides an overview of the three levels of assessment), Users' Guide (provides instructions for completion of the three levels of assessment), and Management Plan Screen (provides an assessment framework to be completed during the development of management plans).
- On November 26, 1998, the Okanagan District of BC Parks entered into a working-level agreement with the Okanagan Indian Band. The agreement will act as a protocol for information-sharing and enhanced communication on protected areas in the district. The agreement provides for a joint committee to discuss protected-area management issues and First Nations issues in park planning and management.
- The brochure, *Prescribed Fire in Provincial Parks*, was published and distributed. This new brochure depicts the challenges that protected-area managers face with regard to their stewardship role in managing protected areas for the public of British Columbia. The Fire Ecology section briefly describes the need for a prescribed fire program, while the Prescribed Fire Management section relates the process to implement the program. The brochure will assist in providing information to the public on the use of prescribed fires in protected areas.
- The background document for the Muskwa-Kechika Management Area was completed. Including overview maps, area descriptions, wildlife and research data, and information collected from stakeholders, it is a key source on the natural, physical and cultural histories of the new protected areas of the Muskwa-Kechika. In addition, by identifying key issues of stewardship and use, this document serves as a starting point for discussions in the development of protected-area management plans.
- A joint venture with BC Environment produced terrestrial ecosystem mapping for Jedediah Island Provincial Park. This mapping will assist with management planning and to determine the impacts of feral animals on the ecology of the provincial park.

- The Okanagan District Resource Management Strategy, a five-year strategy, was produced. This document provides a list of district priorities for the next few years and provides short, mid- and long-term goals. The strategy will be reviewed annually.
- The Thompson River District established procedures to guide a working relationship with the ministry's Fisheries Branch regarding the management of the fishery in that district. The process includes higher levels of liaison between the two agencies and the inclusion of fishery management activities in BC Parks' annual operating plans.
- Provincial parks and ecological reserves continued to be used for a variety of research and monitoring activities. The information gathered through these activities contributes to the agency's knowledge of protected areas and informed management decision-making. There were 166 recorded research activities (research, inventory and monitoring) conducted in 1998/99; 91 were new projects. New projects included research on marine ecosystems in Clayoquot Sound, migrating landbirds research in Wells Gray and Stein Valley provincial parks, and vegetation resource inventory in several protected areas in the Cariboo. Ongoing projects included forest insect and disease surveys in protected areas throughout the province and lichen research in eight protected areas in the Garibaldi-Sunshine District.

Management Planning

- BC Parks' management-planning program provides long-term vision and day-to-day guidance for the stewardship, management and development of protected areas. BC Parks implemented a pilot project aimed at increasing the efficiency and effectiveness of the Management Plan approval process. Success in decreasing the time for plan approval and increasing the effectiveness of the process through direct involvement of appropriate district staff and agency executive in the approval process will be evaluated in 1999/2000.
- Approval of six management plans (MPs) increased the number of MPs approved within the last 10 years to 78. The six new plans ensure the protection of significant natural, cultural heritage and outdoor recreation values within these protected areas.

- *Nisga'a Memorial Lava Bed Park Master Plan* encourages and supports a spirit of cooperation through its emphasis on several important elements, including the presentation and celebration of the rich Nisga'a culture, the protection of natural and cultural values through appropriate master-plan zoning, a development program that permits visitor access to park features, but ensures control of visitor use and impacts and full involvement by Nisga'a people in providing park administration, education and development services.
- *Fintry Park Management Plan* establishes management direction for a provincial park containing impressive outdoor recreation opportunities, natural values and cultural heritage features on the northwest portion of Okanagan Lake.
- *Tunkwa Park Management Plan* puts in place management strategies for a popular outdoor recreation area southwest of Kamloops.
- *Marble Range and Edge Hills Parks Management Plan* provides direction to protect the provincially significant wilderness values and regionally significant cultural heritage features by zoning over 95% of the parks as Wilderness Recreation. It also focuses management on the maintenance of natural plant communities and their contributions to summer and winter wildlife habitat.
- *Bugaboo Park Management Plan* provides management direction for an internationally significant mountain-climbing protected area in the East Kootenays.
- *Elk Lakes and Height of the Rockies Parks Management Plan* provides management direction for spectacular Canadian Rocky Mountain landscapes and provincially significant wildlife habitats in the East Kootenays.
- BC Parks implemented management direction statements as a new innovation to enhance the efficiency in providing management direction where a more extensive Management Plan is not required or feasible. The agency's goal is to have either a management plan or management direction statement (MDS), which is less than ten years old, in place for each designated protected area. Annual progress made towards accomplishing this goal is clearly dependent upon available resources.
- In addition, 6 MPs and 25 MDSs are awaiting approval, and work continues on 16 MP projects and 65 MDS projects for protected areas within BC Parks districts.

Objective 2: Support the completion of the Protected-Areas System through to designation. BC Parks plays the primary role in designating protected areas and also ensures that BC Parks' interests or concerns are represented at appropriate land-use planning tables.

Progress Towards Completion of the Protected Areas Strategy

Recent Accomplishments

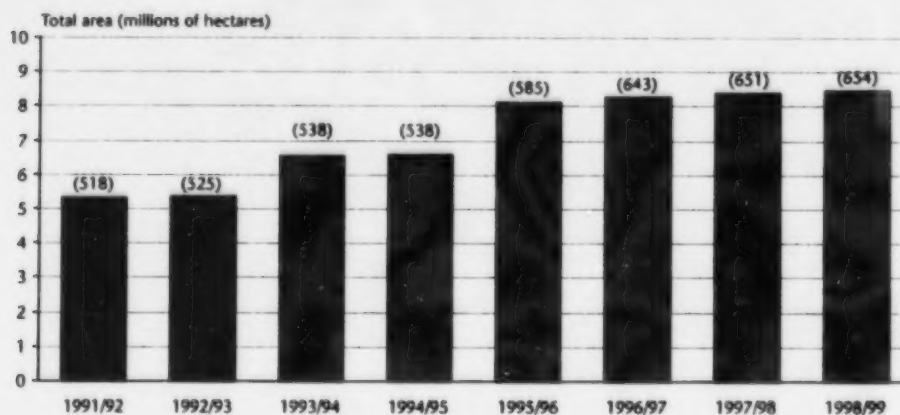
- The Protected Areas Strategy component of strategic land-use planning continues to be a principal focus for the province. BC Parks continued to play a key role in the significant progress made by provincial agencies towards securing protected areas through:
 - Participating in the completion of three strategic land-use plans.
 - The formal establishment of protected areas identified in previously concluded strategic land-use plans.
 - On-going land-purchase projects.
- In total, there were:
 - Two new Class A parks established.
 - Two protected areas established under the *Environment and Land Use Act*.
 - Two ecological reserves established under the *Ecological Reserve Act*.
 - Additions to one existing Class A park and one protected area.
 - Three Gulf Island properties acquired through the federal-provincial Pacific Marine Heritage Legacy program.
 - Sixty-one new protected areas and additions announced, but not yet formally designated.
 - A land donation resulting in an addition to Shuswap Lake Marine Park and an addition to Naikoon Park through a land exchange.

Tables 1 and 2 at the end of this report provide details on protected-areas designations and announcements in 1998/99.

- Combined, these designations and announcements total more than 722,000 hectares of protected area. With these additions to the Protected Areas Strategy, as of March 31, 1999, BC Parks managed 654 protected areas (141 ecological reserves, 492 parks, 23 recreation areas and 12 areas designated under the *Environment and Land Use Act*), totalling 8,468 million hectares (refer to Table 3). As of mid-1999, the area of all sites designated or announced for designation and to be managed by BC Parks represented 10.4% of the British Columbia land base.

- BC Parks' target is to legally designate new protected areas within three years of an announcement date where appropriate documentation has been provided. The newly designated protected areas were announced in 1996 and 1997, thereby meeting the performance measure target. Currently, only one announced protected area has not been designated within the time period specified (Bodega Ridge, announced in 1995).
- As well, by statute, BC Parks must designate a minimum of 10 million hectares of parkland by January 1, 2000.
- The government released the Prince George, the Fort St. James and the Dawson Creek land and resource-management plans, announcing 50 new protected areas or expansions to existing sites (totalling more than 579,000 hectares). These areas contain significant natural, cultural and recreational values.
- The *Muskwa-Kechika Management Area Act* was passed in July 1998, establishing a legislated trust fund to support management in the Muskwa-Kechika, allowing for the more efficient administration of the existing Muskwa-Kechika Management Plan and confirming the existing order-in-council framework. This globally renowned area comprises 4.4 million hectares of protected areas and special management zones. The management

Figure 1: Area of Provincial parks and Ecological Reserves (1991/92-1998/99) ¹



¹ Includes provincial parks, recreation areas, ecological reserves and protected areas established under the *Environment and Land Use Act* managed by BC Parks.

Source: BC Parks Land Administration Section.

area contains 11 of the 33 new protected areas identified in the Fort Nelson and Fort St. John land and resource-management plans, encompassing over one million hectares. Few other places in the world match the features of the Muskwa-Kechika area in terms of species groupings, wildlife population densities, remoteness and minimal development.

- As part of the Pacific Marine Heritage Legacy (PMHL) Program, a joint initiative of the federal and provincial governments, three Gulf Island properties were acquired, totalling 702 hectares at a cost of over \$9 million (Georgeson Island, Taylor Point and the F. Williams property on Saturna Island).
- In 1994, the provincial and federal governments agreed to cooperatively develop a Marine Protected Areas Strategy to establish a network of marine protected areas along the Pacific Coast. In August 1998, a discussion paper entitled, *Marine Protected Areas — A Strategy for Canada's Pacific Coast*, was released. This discussion paper sets forth the goals and objectives for a marine protected areas system and identifies the policy framework and decision-making processes for selecting, designating and managing marine protected areas.

BC Heritage Rivers System

- Initiated in 1995, the BC Heritage Rivers System provides a mechanism to recognize those rivers possessing exceptional natural heritage, cultural heritage and/or recreation values that warrant a greater focus in land-use planning and a higher public profile. Seven BC Heritage Rivers were proclaimed by the minister on May 3, 1998: Alouette, Columbia, Middle, Peace, Prophet and Stuart rivers and Mission Creek. In total, eighteen rivers have been accorded this status since 1995. In addition, in September 1998, the Fraser River was formally commemorated as a Canadian Heritage River at a plaque-unveiling ceremony at New Westminster.

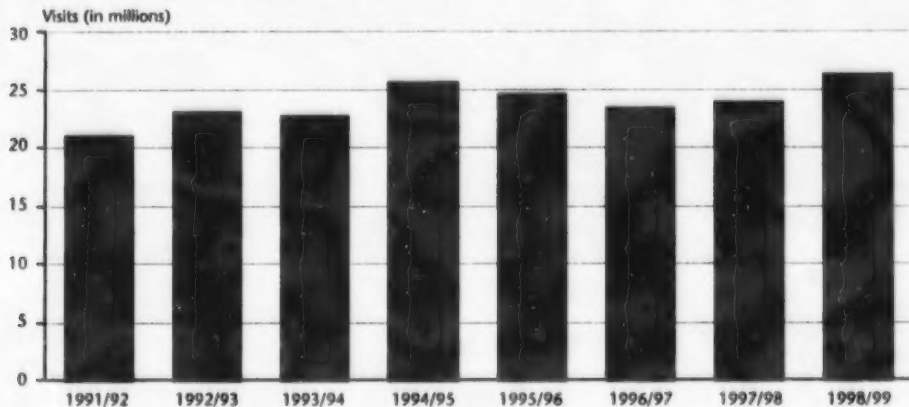
Objective 3: Manage and provide services and facilities to sustainable levels in all designated areas. BC Parks is committed to managing park-service infrastructure, accommodation, recreation and interpretation/education facilities to a level that is sustainable. Sustainability needs to be defined in terms of stewardship, levels of use, visitor satisfaction, safety, liability, risk and financial prudence.

Protected Area Visitation

Recent Accomplishments

- BC Parks recorded 26.3 million visits to provincial parks in 1998, exceeding the performance measurement target by over 3.3 million visits. Total park use increased by 10.5% compared to 1997. The visitation target for 1999/2000 has been increased by 2.4 million visits, based on the average of the last five years of park attendance. Visitor-satisfaction survey results indicate that 68% of campground visitors were from British Columbia, 15% from other provinces, 10% from the United States and 6% from overseas. The origin of day-use visitors in 1998 was 84% from British Columbia; 7% from other provinces; 4% from the United States and 5% from overseas. Fifty-one per cent of B.C. residents indicated that they had used a provincial park in the past 12 months, meeting the performance target of 50%.
- Despite high visitation levels, relatively few visitor injuries requiring medical attention were reported to park-facility operators and/or BC Parks staff. There were 156 such injuries reported in 1998/99, 21 (25%) higher than the target of 125.

Figure 2: Provincial park visits (1991/92-1998/99)¹



¹ Total visits = campground visits + day-use visits + boating visits.
Source: BC Parks Business Research and Evaluation Section.

Visitor Satisfaction

- BC Parks' annual visitor-satisfaction survey was conducted in 29 campgrounds and 21 day-use areas from May to September 1998. Provincial results indicate that 7 of 10 campground and 7 of 9 day-use facility/service items evaluated by visitors received ratings that exceeded or met the highest average provincial score ever received (visitor-satisfaction surveys have been conducted by BC Parks since 1985). The campground visitor-satisfaction index⁴ for 1998/99 indicates that 81% of overnight visitors rated BC Parks' facilities and services as excellent or above average. This is 6% higher than the performance measure target of 75%. "Cleanliness of restrooms," "sense of security" and "cleanliness of grounds" continue to be ranked as the most important facility/service items to park campground visitors.
- High public demand for experiencing British Columbia's provincial parks was evident in the increase from 1997 to 1998 in campsite reservations made for 63 (49 in 1997) of 165 parks where camping opportunities are provided. Reservations are booked through the Discover Camping reservation system, which is now in its fourth year of operation. In 1998, 58,400 reservations (representing more than 171,000 camping nights, an increase of 19% compared to 1997) were made through the system, representing an increase of 10,500 reservations over 1997. In 1998, 84% of reservations were made by British Columbians, 11% by Albertans, 2% by other Canadians and 3% by Americans.

Promoting, Providing and Managing Facilities and Services

- Recreation opportunities and experiences for provincial park users will be significantly enhanced due to a notable investment in park facilities funded through the Forest Renewal BC Program (FRBC). Approximately \$5.345 million was invested in reconstructing existing facilities and constructing new facilities. BC Parks' projects, funded under the FRBC Recreation Program, included upgrading and providing interpretation facilities and constructing interpretive trails and supporting information materials in a variety of protected areas across B.C.

⁴ Visitor-satisfaction index is based on the average percentage of respondents indicating "very" or "somewhat" satisfied with five management items (maintenance: cleanliness of restrooms, cleanliness of grounds, condition of facilities; security: sense of security, control of noise).

- In 1998, the government announced it will assist more British Columbians in accessing affordable vacation experiences through an initiative to expand campgrounds by the end of 1999. A total of 1,500 campsites will be constructed; 500 campsites were constructed in 1998/99, with the remaining 1,000 to be completed in 1999/2000.

Objective 4: Provide knowledge, tools and systems to ensure employee wellness and allow for efficient and informed planning, management and service delivery. BC Parks believes that our people and the tools provided to do our work are of paramount importance. Efforts in the next three years will identify critical knowledge and information gaps that affect our ability to meet our objectives. With the emphasis on staff empowerment and decentralized accountability, employee wellness will remain a high priority.

Human Resources

Recent Accomplishments

- Due to continuing budget pressures and associated organizational fine-tuning in 1998, 10 positions were eliminated in Victoria and two in the field offices. As well, 12% of the seasonal Park Ranger staff were eliminated. The majority of FTEs (full-time equivalents) remain in the field offices in order to meet the priority front-line agency responsibilities; 302.5 FTEs, with 68.5 in Victoria, focused on policy direction and specialized agency services, such as web-site operation and land acquisition.
- BC Parks conducted a survey with all of its regular and auxiliary employees in September 1998. The purpose of the survey was to identify what BC Parks is doing well and what the agency needs to improve to make BC Parks a better place to work. BC Parks established a performance target that specified 80% of employees, by March 31, 2001, will indicate they are satisfied they have the information systems, tools and technical support and training to do their job. The 1998 employee survey results were that 64% of employees indicated they were satisfied (rating of "excellent" or "good") that they have the necessary equipment to do their job, 53% indicated they have the necessary technical support, 65% have access to the necessary information to do their job and 40% have opportunities to improve their skills. Actions to identify and implement work-environment improvements are occurring at the local work-site and agency-wide level. A regular quarterly review and annual reporting process will be used to assess progress on the actions identified.

Information Management System

- In order to close a serious technological gap, an Information Systems Section was staffed in 1998/99 to begin to move the agency forward in reaching the standards of the ministry and government. The new staff were able to complete the installation of a local and wide-area network across the province. Progress was also made in connecting BC Parks field offices to land and resource data, important in day-to-day management and decision-making, that is available from other agencies. With the continuing land-use planning process, particularly in northern B.C., this has been a positive accomplishment.
- Due to budget pressures, remote locations and other factors, the connectivity of BC Parks offices still remains far below the ministry and government standard; 19.2K and 56K lines are still in use, compared to the ministry and government target of T1 (1.5Mb). Upgrading the infrastructure will remain a high priority for BC Parks. The remote location of many BC Parks' offices creates challenges, as often the telecommunications industry does not have the up-to-date communications hardware to meet our needs. BC Parks is working with ministry specialists to pursue essential upgrades.

Staff Training and Empowerment

- BC Parks launched a team-building and process-improvement initiative called QUEST (Quality Enhancement through Skills Training) in 1997/98. In-house trainers recruited from Parks staff delivered the training program to other staff in 1998/99. The agency has now met its goal to have all BC Parks staff participate in the program by the end of the 1998/99 fiscal year.
- Process-improvement initiatives related to organizational effectiveness remain a high priority for BC Parks, as employees identified "ensuring only necessary administrative policies and procedures are in place" as a high priority for improvement in the BC Parks 1998/99 Employee Survey. QUEST tools are being used to examine and simplify local office processes, as well as processes within the branch, ministry and other government agencies. A province-wide, multi-phase QUEST initiative to examine the agency's payroll procedures was approved and implemented in 1998/99. Payroll procedures, a major task for

the agency due to the remote locations of many parks, have been simplified and standardized. Further initiatives will be undertaken this year in all program areas in order to streamline procedures to make work more satisfying for staff and to allow an improved focus on priorities.

Objective 5: Broaden understanding, commitment and support for protected-area values and management. To ensure the long-term viability of the protected-area system it is critical that BC Parks build broad-based understanding, commitment and support among residents of the province. The implementation of government-approved BC's Park Legacy Panel recommendations will be a high priority.

Alliances, Sponsors and Volunteers

Recent Accomplishments

- BC Parks provides opportunities for individuals from all walks of life to volunteer in provincial parks, for organizations to provide sponsorships and develop alliances to carry out work of mutual interest and value, and which enhance the management of parks and ecological reserves. In this way, BC Parks involves a vast number of people in the agency's work, which increases the understanding, commitment and support for protected-area values.
- The number of volunteers increased from 1,500 in 1997 to more than 2,200 in 1998, while the number of volunteer hours recorded remained roughly the same as 1997 — 98,000. Again, the work provided by these volunteers, which would not otherwise have been delivered, was valued at close to \$1 million to BC Parks.
- BC Parks continued the implementation of Park Watch, a volunteer program that provides visitor and park-resource monitoring and basic data-gathering services. A handbook to guide program implementation was distributed to BC Parks staff.
- Sponsorship and alliances are another important source of impetus for projects, such as special events, information signs, park operations and school programs. One project alone, the 1998 Salute to the Sockeye at Roderick Haig-Brown Park, generated \$62,500 in cash donations, \$20,000 in in-kind donations and \$43,000 in earned revenue, which allowed for this successful event to proceed.

Internal and External Outreach

- *Visions* is an internal newsletter produced six times a year to communicate within and beyond the agency. With a print run of 1,300 copies, this publication reflects the agency's commitment to quality service and stewardship, and encourages and rewards innovation by all involved with BC Parks.
- BC Parks also provides the public with general information, as well as specific information for more than 400 parks on the BC Parks web site (<http://www.elp.gov.bc.ca/bcparks>). Improved public access to draft management-planning documents has included the posting of draft plans for Callaghan Lake and Jedediah Island Marine Park.
- The number of contacts using the web site has increased dramatically since its implementation in July, 1997 (653 contacts), reaching nearly 9,000 in July, 1998.

Public Programs

- BC Parks offers a variety of in-park and out-of-park programs that provide a range of experiences contributing to public understanding, appreciation and enjoyment of provincial parks. Programs range from organized nature walks and talks to self-guided trails and visitor-centres. All involve interpretive, educational or recreational activities.
- Total participation in interpretive and education programs, attendance at visitor-centres and informational contacts increased nearly 15% to more than 900,000 contacts compared to 1997.
- Visitor-centre and information contacts were 338,000 in 1998, down 4% from the previous year. Work began this year on a new visitor-centre at Naikoon Provincial Park on the Queen Charlotte Islands.
- Most importantly, attendance at organized programs increased this year by 11%, with 260,000 people attending programs. This includes increases in evening programs of 10%, special events of 43%, day programs of 10% and school programs of 4%. Guided walks increased by four times the previous year's attendance (3,000 in 1997, 12,000 in 1998).

- Contracted interpretive service programs were provided in 44 parks. BC Parks contributed nearly \$850,000 to program delivery, while contractors generated an additional \$143,000 through donations, sponsorships and fee-for-service programs.
- Virtually all districts have put particular emphasis on school programs, many of which use ministry learning resources such as *Protected Areas: Preserving Our Future*, and *Backyard Biodiversity and Beyond*. More than 55,000 students were involved in school programs this year, up 4% from 1997.
- This year, BC Parks implemented an in-house-developed Interpretation Program Evaluation tool. Workshops were given in southern districts of the province, with training offered to area supervisors and front-country rangers, as well as individuals from Parks Canada and BC Parks interpretive contractors. The evaluation allows for constructive feedback to BC Parks contractors and also allows those undertaking interpretation contract monitoring to learn more about how to judge the quality of interpretive communications.
- Policies for the long-term scope and direction of educational and interpretive programs were near completion by the end of 1998/99.

BC Parks' Key Priorities for 1999/2000

The anticipated directions for 1999/2000, following the same broad objectives as in 1998/99, include:

- Supporting the ongoing protected-areas system expansion, including marine components, will be a focus of the agency.
- Designation of new protected areas will continue to be a priority in order to meet the legislated requirement to designate a minimum of 10 million hectares of parkland by January 1, 2000.
- It has been a long-term practice of BC Parks to seek public and government direction for the management of protected areas. The most recent input has come through the BC Parks' Legacy process. Ecological integrity is a strong emphasis in Legacy Panel recommendations and will be a driving force in future protected-area management.

- It is an agency priority to assist with and act on government decisions related to Legacy Panel recommendations.
- Completing plans to guide management of the many new protected areas will continue to be a priority.
- Relative priorities will be met within and between parks using the "levels of management" methodology; the focus in new protected areas will be on protecting the key values for which the area was designated.
- New policy development will be focused on key priorities and implementing approved Legacy Panel recommendations (e.g., legislation amendments).
- The Impact Assessment Policy will be implemented to ensure that natural, cultural heritage and recreation values are protected during all activities and practices conducted in protected areas.
- Information on BC Parks' management policies and practices will be highlighted through presentations and publications to develop understanding and support.
- There will be continued efforts to improve the division's information systems (e.g., data systems integration, digitized mapping) to ensure staff have the best available information on which to base decisions that will effectively support our stewardship activities.
- Park fee increases will be reinvested to maintain park services.
- Facility repairs will focus on funded replacements and emergency repairs on a priority basis with emphasis on health, safety and reducing environmental impacts. BC Parks will begin a multi-year reconstruction program for park facilities with a \$2 million revitalization budget in 1999/2000, the first year of the program.
- New campsite construction will occur under the Campgrounds BC initiative with 1,000 campsites completed in 1999/2000; 1,500 campsites will be completed over the two-year, 1998-2000 program.
- BC Parks will continue to deliver safe and rewarding outdoor recreation opportunities for millions of park visitors.
- Adaptive service delivery initiatives will be pursued, as part of a ministry-wide initiative, to enhance our effectiveness and assist in managing workloads.

TABLE 1 Protected areas established between April 1, 1998 and March 31, 1999

	<i>Hectares Added</i>	<i>Total Hectares</i>	<i>Date of Establishment Addition</i>
Parks			
Cummins Lakes (addition)	15,619.2	21,728.5	September 16, 1998
Clendenning		30,357.0	December 9, 1998
Tantalus		11,351.0	December 9, 1998
Ecological Reserves			
Liumchen		2,190.4	December 9, 1998
Yale Garry Oak		11.7	December 9, 1998
Environment and Land Act Designations			
Russell Island		16	May 13, 1998
South Otter Bay (addition — the Davidson property)	5	219	May 13, 1998
Tumbo Island		121	May 13, 1998

**TABLE 2 Protected areas announced between April 1, 1998 and March 31, 1999, but not designated during the reporting period
(area figures are estimates only)**

	<i>Hectares</i>
Pacific Marine Heritage Legacy	
Georgeson Island	6.5
Taylor Point	50.7
F. Williams	644.8
Prince George Land and Resource Management Plan	
Crooked River Provincial Park addition	70
Carp Lake Provincial Park additions	18,000
Stuart River	7,700
Eskers Provincial Park additions	2,800
Fort George Canyon	160
Dahl Lake Extension	740
Bobtail Mountain	1,300
Fraser River	4,800
Three Sisters Lakes	1,000
Purden Lake Provincial Park addition	2,200
Giscome Portage Trail	160
Arctic/Pacific	14,000
Fang Mountain	1,600
Close to the Edge	580
Monkman Provincial Park addition	22,000
Kakwa Recreation Area	121,000
Kakwa South addition	18,000

TABLE 2 *continued*

	<i>Hectares</i>
Sugarbowl/Grizzly Creek	23,000
Bowron Provincial Park addition (Wolverine River)	5,200
Ptarmigan Creek	4,600
Erg Mountain	1,200
Slim Creek	470
Whiskers Point Provincial Park addition	40
Fort St. James Land and Resource Management Plan	
Stuart River	5,600
Mount Pope	2,000
Fleming	41,600
Mudzenchoot	600
Mt. Blanchet	24,100
Nation	19,800
Omineca	7,100
Upper Sustut Thumb	77,600
Damdochax	8,100
Thirteen small sites	not yet determined
Dawson Creek Land and Resource Management Plan	
Peace River/Boudreau	6,750
Pine LeMoray	33,105
Wapiti Lake	16,920
Klin-se-za	2,680
Butler Ridge	6,675
Bearhole Lake	17,810
Kakwa North	31,760
Elephant Ridge	23,225
Kiskatinaw River	165
Pine River Breaks	595
Peace Corridor River Sites	330
Bocock Peak	1,130
Dunlevy Recreation Site	110
Hole in the Wall	130
Monkman Connector	185
Rolla Site	45
Vancouver Island Land Use Plan Goal Two Sites	
Cowichan River (Cowichan River Park addition)	38
Haley Lake (Haley Lake Ecological Reserve addition)	256
Divers Lake (Strathcona Park addition)	990
San Juan River Estuary	110
Goepel Island (Surge Narrows Marine Park addition)	17
Other	
Seven Sisters	38,875
Upper Kispiox	42,374
Horseshoe Bay (Shuswap Lake Marine Park addition)	1

TABLE 3 Park/Ecological Reserve System

<i>Designation</i>	<i>1997/98 (Number)</i>	<i>1998/99 (Number)</i>	<i>1997/98 Area (ha)</i>	<i>1998/99 Area (ha)</i>
Class A Park	470	472	7,010,750	7,068,077
Class B Park	2	2	3,778	3,778
Class C Park	18	18	562	526
Recreation Area	24	23	818,749	817,449
<i>Environment and Land Use Act</i>	12	12	422,950	422,940
Ecological Reserves*	139	141	159,447	161,679
TOTAL	651	654	8,409,355	8,467,584

* Twelve ecological reserves are also included in Class A parks. The area of overlap is approximately 6,595 ha. Two ecological reserves are also included in Lac du Bois Grasslands Park established under the *Environment and Land Use Act*. The area of overlap is 270 ha.

NOTE: The above numbers are derived from the orders-in-council and schedules in the *Park Act* establishing the sites. These numbers are under review and may differ from numbers used in land-use planning processes which have been derived from updated GIS databases. Efforts are currently under way to harmonize the numbers in the orders-in-council and *Park Act* with those used in land-use planning processes.

TABLE 4 BC Parks — Yearly Comparisons

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99
Visits¹ ('000)						
Campground use	2,580	2,793	2,892	2,710	2,675	2,967
Day use	19,720	22,247	21,491	20,351	20,752	22,897
Boating use	425	471	412	412	400	431
TOTAL	22,725	25,511	24,795	23,473	23,827	26,295
Revenue (\$'000; in \$ of year reported)						
Revenue returned to the province ⁶ :						
Campground	113	89	82	74	74	236
Park use permits and concessions	526	519	545	497	457	616
Commercial River Rafting Program	33	40	48	63	49	50
Miscellaneous				37	25	56
TOTAL	672	648	675	671	605	958
Revenue retained by park-facility operators	7,821	8,660	9,000	8,593	8,300	9,232
Expenditures (\$'000; in \$ of year reported)						
Crown Land Fund land acquisition ⁷	18,284	28,565	39,005	1,852	1,299	364
Parks vote	35,705	35,495	33,205	33,000	32,870	31,060
Landbase:						
Park ha (thousand)	6,572	6,617	8,148	8,266	8,402	8,468
Park area per B.C. resident (ha)	1.8	1.8	2.2	2.1	2.1	2.1
Net park expenditure per resident ⁸ (1998 \$)	8.29	7.63	6.56	6.41	6.28	5.47
Visitor Services:						
Operations cost per visitor (1998 \$) ⁹	2.04	1.80	1.74	1.79	1.73	1.53
Camping parties per campsite ¹⁰	75	82	85	79	76	84
Visitor-satisfaction index for campground facilities/services ¹¹	79	75	77	77	81	81
Visitor injuries ¹²	90	107	110	131	119	156

¹ Visitation is for the calendar year that ends in the fiscal year (e.g., 1998 for 1998/99).

⁶ Campground revenue does not include fees retained by park-facility operators; miscellaneous revenue primarily includes non-refundable bid deposits.

⁷ Includes land purchases and appraisals, surveys and property transfer and property taxes for lands acquired. The figures displayed do not include land values for lands obtained through land exchanges or donations.

⁸ Net expenditures equals BC Parks vote less total revenue returned to the province divided by the B.C. population (net cost to B.C. residents).

⁹ Operations cost per visitor equals parks vote + revenue retained by the park facility operators divided by total (park) visits.

¹⁰ Camping parties per campsite represents the number of uses per developed, fee-collecting campsite.

¹¹ The index is calculated based on the provincial average of "excellent" and "above average" ratings received for five management items: cleanliness of restrooms, condition of facilities, cleanliness of grounds, sense of security and control of noise.

¹² Visitor Injuries requiring transportation to medical aid by ambulance/ air evacuation and reported to the park facility operator and/or BC Parks staff.

BC Parks Directory

Assistant Deputy Minister's Office

Location: Fifth floor, 2975 Jutland Road, Victoria, B.C.
Mail: PO Box 9339, Stn Prov Govt Victoria BC v8w 9m1
Telephone: (250) 387-1161
Fax: (250) 387-5669

Victoria Office

Location: Second floor, 800 Johnson Street, Victoria, B.C. v8v 1x5
Mail: PO Box 9398 Stn Prov Govt Victoria BC v8w 9m9
Telephone: (250) 387-5002 Reception
Fax: (250) 387-5757

Cariboo District

Location: 281 1st Avenue North, Williams Lake, B.C. v2g 1v7
Mail: 281 1st Avenue North, Williams Lake BC v2g 1v7
Telephone: (250) 398-4414
Fax: (250) 398-4686

Garibaldi/Sunshine Coast District

Location: Alice Lake Park, 13 km north of Squamish on Highway 99,
Brackendale, B.C. v0n 1h0
Mail: PO Box 220, Brackendale BC v0n 1h0
Telephone: (604) 898-3678
Fax: (604) 898-4171

Kootenay District

Location: 6188 Wasa Lake Park Drive, Wasa, B.C. v0b 2k0
Mail: PO Box 118, Wasa BC v0b 2k0
Telephone: (250) 422-4200
Fax: (250) 422-3326

Lower Mainland District

Location: 1610 Mount Seymour Road, North Vancouver, B.C. v7g 2r9
Mail: 1610 Mount Seymour Road, North Vancouver BC v7g 2r9
Telephone: (604) 924-2200
Fax: (604) 924-2244

Okanagan District

Location: Eleven km north of Summerland on Hwy 97, Summerland, B.C.

VOH 1Z0

Mail: PO Box 399, Summerland BC V0H 1Z0

Telephone: (250) 494-6500

Fax: (250) 494-9737

Peace Liard District

Location: 150 10003 110th Avenue, Fort St. John, B.C. V1J 6M7

Mail: 150 10003 110th Avenue, Fort St. John BC V1J 6M7

Telephone: (250) 787-3407

Fax: (250) 787-3490

Prince George District

Location: 4051 18th Avenue, Prince George, B.C. V2N 2J6

Mail: PO Box 2045, Prince George BC V2N 2J6

Telephone: (250) 565-6759

Fax: (250) 565-6940

Skeena District

Location: 3790 Alfred Avenue, Smithers, B.C. V0J 2N0

Mail: 3790 Alfred Avenue, Bag 5000, Smithers BC V0J 2N0

Telephone: (250) 847-7320

Fax: (250) 847-7659

South Vancouver Island District

Location: 2930 Trans-Canada Highway, Victoria, B.C. V9E 1K3

Mail: 2930 Trans-Canada Highway, Victoria BC V9E 1K3

Telephone: (250) 391-2300

Fax: (250) 478-9211

Strathcona District

Location: Three km south of Parksville on Hwy. 19, Parksville, B.C. V9P 2H4

Mail: PO Box 1479, Parksville BC V9P 2H4

Telephone: (250) 954-4600

Fax: (250) 248-8584

Thompson River District

Location: 1210 McGill Road, Kamloops, B.C. V2C 6N6

Mail: 1210 McGill Road, Kamloops BC V2C 6N6

Telephone: (250) 851-3000

Fax: (250) 828-4633

Legislation Administered

Boundary Act
Commercial River Rafting Safety Act
Creston Valley Wildlife Act
Dike Maintenance Act
Diking Authority Act
Dogwood, Rhododendron and Trillium Protection Act
Drainage, Ditch and Dike Act
Ecological Reserve Act
Environment and Land Use Act
Environment Management Act
Environmental Assessment Act
*Financial Administration Act*¹
Fish Protection Act
Greenbelt Act
Industrial Operation Compensation Act
Land Act
Land Survey Act
Land Surveyors Act
Land Title Act
Libby Dam Reservoir Act
Ministry of Environment Act
*Ministry of Lands, Parks and Housing Act*¹
Motor Vehicle (All Terrain) Act
Muskwa-Kechika Management Area Act
Park Act
Park (Regional) Act
Pesticide Control Act
Skagit Environmental Enhancement Act
Sustainable Environment Fund Act
*University Endowment Land Act*¹
University Endowment Land Park Act
Waste Management Act
Water Act
Water Protection Act
Water Utility Act
Weather Modification Act
*Wildlife Act*²

¹ Administered in part only.

² Sections relating to fish and aquatic plants now administered by the Ministry of Fisheries.